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ABSTRACT

This packet contains five issues of "GED Profiles" that examine various aspects of the characteristics and motivation of adults who take the General Educational Development (GED) tests and the effects of completion. These topics are explored: "GED Candidates in the Workforce: Employed and Employable" (Janet Baldwin, Henry Spille); "Why Did They Drop Out? Reasons GED Candidates Give for Leaving School" (Janet Baldwin); "GED Test Performance of Adult Examinees and High School Seniors" (Janet Baldwin); "The Gender Gap: Women and Men Who Take the GED Tests" (Elisabeth Hayes, Janet Baldwin); and "GED Candidates: Does Age Make a Difference?" (Bonnie Kroll, Janet Baldwin). In addition, each issue summarizes key findings and implications and includes a short list of highlights, graphs and tables, and a reference list. (KC)

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ED 416 332

GED Profiles: Adults in Transition

Nos. 3-7

June 1991-September 1994

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GED Profiles: Adults in Transition

GED TESTING SERVICE OF THE AMERICAN COUNCIL ON EDUCATION • JUNE 1991 • NO. 3

GED Candidates in the Workforce: Employed and Employable

by Janet Baldwin and Henry Spille

KEY FINDINGS AND IMPLICATIONS

- GED *graduates'* reading skills, on average, *surpass* those of graduating high school seniors. GED *candidates'* reading skills, on average, are *equivalent* to those of seniors. The GED Tests measure literacy skills as well as skills in writing, mathematics, and problem-solving. **The GED Tests provide valid and reliable measures of skills that are important in the workplace. Job counselors, employment training directors, and employers should recognize that GED candidates and graduates have literacy skills which are comparable to those of high school graduates.**

- In 1989, half of the GED candidates (50 percent) were employed for pay. An additional 30 percent were unemployed but seeking jobs. A total of four in five candidates (80 percent), then, were either employed or seeking jobs, demonstrating a high proportion of workforce participation. Thus, GED candidates represent a motivated employee pool. **Employers seeking to hire or promote motivated entry-level workers should consider GED candidates and graduates in their recruitment and promotion efforts. Adult education providers should establish linkages with business organizations such as local chambers of commerce and other community-based employment services programs that can provide job referrals, job counseling, and employment opportunities for candidates.**

- Two in five GED candidates (40 percent) under the age of 18 reported they were employed in 1989, and an equal proportion (41 percent) was unemployed and looking for jobs. The high proportion of candidates under 18 who are either employed or seeking jobs reflects the importance of work for this population. However, future earning potential and long-term productivity of young workers may depend on their access to continuing education and training opportunities. **By recognizing alternative credentials for educational attainment —such as the GED diploma—employers can motivate young workers to seek additional education and training and to continue learning.**

Substantial changes are taking place in the composition of the nation's workforce and in the nature of work itself. Recent studies of the work-force and the changing structure of work have echoed the concern that the skills of the nation's workers are not adequate for the demands of current and future jobs. Moreover, increased competition in the global marketplace is contributing to the rising need for worker training. Employers need workers who possess skills in reading, writing, and mathematics; who have the ability to learn and apply skills; and who can solve problems. Yet employers report that it is increasingly difficult to identify and hire workers who possess these skills and characteristics.

Issue Highlights:

- About three in four employed candidates worked full time.
- Half of candidates ages 18 to 24 worked in service, sales, and technical occupations.
- More than one in ten candidates reported annual household incomes of more than $40,000.

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Adults take the GED Tests to demonstrate the attainment of high school level achievement. In 1989, 68 percent of these candidates earned scores that qualified them for high school diplomas. In terms of employment status, how do GED candidates compare to other adults in the United States? Are their educational skills comparable to those of high school graduates? Do they work? How much do they work? What jobs do they have? How much do they earn? What are their employment and educational goals? How do their skills and attitudes compare to those demanded by employers?

The answers to these questions, presented below, are based on the 1989 Candidate Survey, a fall 1989 nationwide survey of GED examinees, and on the 1989 Performance Study, an analysis of the GED Test performance of examinees and graduating high school seniors. This report describes candidates' employment status, job categories, household income, educational and employment goals, and recent test achievement.

Who Works?

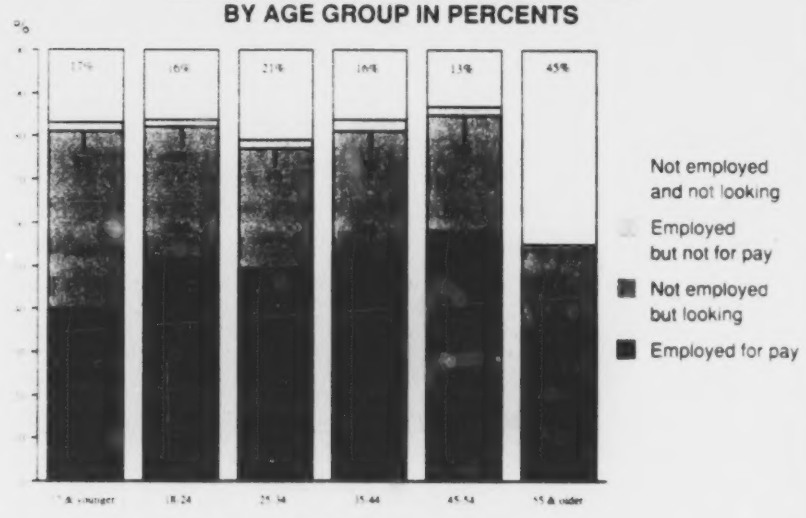
In general, the *employed* are persons who work for pay. The *unemployed* are those without jobs who are looking for work. Persons who are neither employed nor unemployed are *not in the workforce*. For the purposes of this report, 1989 candidates who were employed but not for pay, as well as those who were neither employed nor seeking jobs, are considered *not in the workforce*.

- **In 1989, half of the GED candidates (50 percent) were employed for pay. An additional 30 percent were unemployed and seeking jobs. A total of four in five candidates (80 percent), then, were either employed or seeking jobs** *(Table 2, page 6)*.

- **The high proportion (80 percent) of candidates who were either employed or seeking jobs in 1989 is nearly twice the workforce participation rate of the U.S. civilian population of high school non-completers in 1990 (44 percent).**

Figure 1

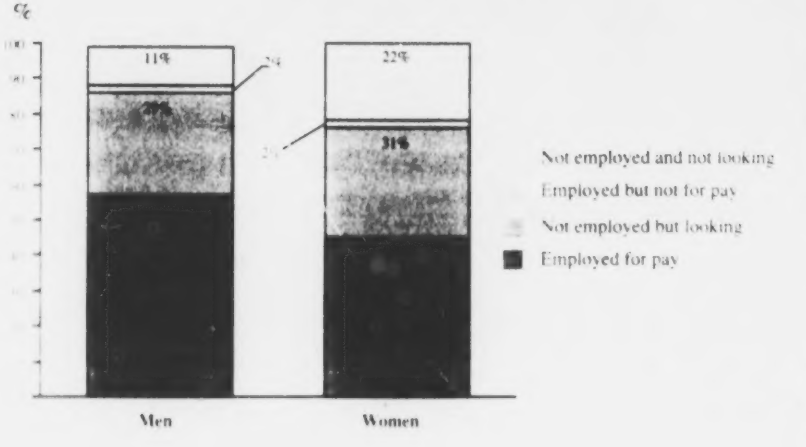
EMPLOYMENT STATUS OF CANDIDATES BY AGE GROUP IN PERCENTS



Source: 1989 National Candidate Survey, American Council on Education

Figure 2

EMPLOYMENT STATUS OF MEN AND WOMEN CANDIDATES IN PERCENTS



- **One in five candidates (19 percent) was not in the workforce. That is, one in six (17 percent) was not employed and *not* looking for a job, while 2 percent were employed but not for pay** *(Table 2, page 6)*.

- **Two in five candidates (40 percent) under the age of 18 were employed for pay. An equal proportion (41 percent) were unemployed and looking for jobs** *(Figure 1)*.

- **More than one in five women candidates (22 percent) reported they were not employed and *not* looking for jobs. For men, the proportion was one in ten (11 percent)** *(Figure 2)*.

- **Three in five men candidates (57 percent) were employed for pay. For women, the proportion was less than half (45 percent)** *(Figure 2)*.

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The finding that 80 percent of GED candidates in 1989 were employed or seeking jobs suggests they have strong motivation to work. Compared to other high school non-completers in the U.S. population, GED candidates are twice as likely to participate in the workforce. However, three in ten candidates (30 percent) reported they were out of work and looking for jobs in 1989. Many unemployed adults who take the GED Tests are seeking to improve their employability. By taking and passing the GED Tests, candidates demonstrate achievement in writing, reading, and mathematics—educational skills that are valued by employers.

The high proportion of candidates in 1989 under the age of 18 who were either employed (40 percent) or seeking jobs (40 percent) reflects the importance of work for this population. However, the future earning potential and long-term productivity of young workers may depend on their access to continuing education and training opportunities. Taking the GED Tests offers these young workers an alternative route to high school completion, thereby improving their opportunities for further training and better jobs.

Employer recognition of the GED diploma can encourage these workers to seek additional education and training. By supporting workers' participation in high school completion programs and by offering such programs in the workplace, employers can motivate workers who do not have diplomas to continue learning. Such programs represent an important investment in a company's future productivity.

How Much Do They Work?

Employed candidates reported the number of hours per week they worked. Full-time employment is defined as working at least 35 hours per week. These results include candidates who worked for pay (50 percent) as well as those who worked, but not for pay (2 percent).

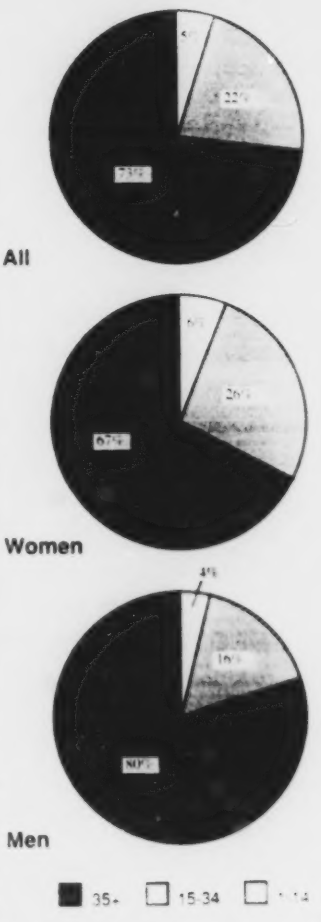
- **About three in four employed candidates (73 percent) worked full time** *(Figure 3)*.
- **About one in four employed candidates (27 percent) reported working part time: 21 percent reported working between 15 and 34 hours per week, while 5 percent worked fewer than 15 hours per week** *(Figure 3)*.
- **Four in five employed men candidates (80 percent) worked full time. One in five (20 percent) worked part time** *(Figure 3)*.
- **Two in three employed women candidates (67 percent) worked full time. One in three (32 percent) worked part time** *(Figure 3)*.
- **The percentage of employed candidates in each age group who worked full time increased with age from a low of 53 percent of those ages 17 or younger to a high of 81 percent of those ages 45 to 54. Three in four candidates (74 percent) aged 55 and older worked full time.**
- **Employed Black and Asian/Pacific Islander candidates (about 35 percent) were more likely than White or Hispanic candidates (about 25 percent) to work part time.**

Employed candidates tended to work full time. Three in four worked at least 35 hours a week, while one in four worked fewer than 35 hours a week. Women (32 percent), Blacks (34 percent), Asian/Pacific Islanders (35 percent), and candidates under age 18 (47 percent) were more likely than others to work part time.

It is not known to what extent full-time versus part-time employment hinges on individual choice and opportunity, local job referral and hiring practices, or other influences. However, these influences and outcomes appear to be interrelated in complex ways. For example, social, economic, and cultural factors that lead men and women to interrupt their schooling may also lead them to have different employment patterns. Marital status and childbearing are known to be important factors in the lower rate of workforce participation by female high school dropouts, and these factors may also account for the reduced

Figure 3

PERCENT OF WOMEN AND MEN CANDIDATES BY FULL-TIME & PART-TIME EMPLOYMENT



Source: 1989 National Candidate Survey
American Council on Education

GED Profiles: Adults in Transition

GED Profiles: Adults in Transition is a series of policy-relevant reports based on research about an important segment of the adult learner population: persons who take the GED Tests. Published by the GED Testing Service of the American Council on Education (ACE), the series is available for $65 from: ACE
Publications Dept. PAT
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Janet Baldwin, *Editor*

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Table 1

PERCENT OF CANDIDATES REPORTING CURRENT OR MOST RECENT JOB: U.S. DEPARTMENT OF LABOR AND OTHER OCCUPATIONAL CATEGORIES

U.S. Department of Labor Occupational Categories	Percent
Managerial and professional specialty included executive, administrative, and managerial; professional specialty; and proprietor or owner.	5%
Sales, administrative support, and technical occupations included sales occupations, administrative and clerical support, and technicians and related occupations.	24%
Service occupations included private household, protective service, and other service, such as cook and custodian.	17%
Precision production, craft, and repair included mechanics and construction trades.	8%
Laborers, machine operators, and transportation included handlers, equipment-moving workers, and laborers, machine operators, assemblers, and inspectors; and transportation and material-moving workers.	20%
Farming, forestry, and fishing included farm operators, managers, and workers, as well as forestry and fishing occupations.	2%
Other Occupational Categories	
Never Worked	4%
Homemaker	6%
Military	1%
Other	16%
TOTAL	100%

Source: 1989 National Candidate Survey, American Council on Education

likelihood of full-time employment for women. As reported in **GED Profiles** No. 1, marriage and pregnancy were the most important reasons for leaving school for one in five persons (20 percent) taking the GED Tests in 1989. Of these candidates, about nine in ten were women. Early marriage and early parenthood appear to have negative impacts on the educational and employment prospects of women candidates.

What Kind of Work Do They Do?

Candidates were asked to indicate their current or most recent job from a list of job categories used in U.S. Department of Labor reports. In addition to these categories, other options included: never worked, homemaker, military, and other.

- **The jobs of most candidates (61 percent) fell into the following three general categories: sales, administrative support, and technical occupations (24 percent); laborers, machine operators, and transportation (20 percent); and service occupations (17 percent)** *(Table 1)*.

- **Six percent of candidates reported they were homemakers and 4 percent reported they had never worked** *(Table 1)*.

- **Half of women candidates (50 percent) reported their current or most recent job was in service (20 percent), sales (18 percent), and administrative support (12 percent) occupations.**

- **Half of men candidates (49 percent) reported they worked in laborer (19 percent), service (13 percent), machine operator (9 percent), and precision production (8 percent) occupations.**

- **Half of the candidates age 18 to 24 (50 percent) worked in service (18 percent), sales (16 percent), and technical (16 percent) occupations.**

- **Nearly half (48 percent) of the candidates under the age of 18 worked in sales, service, or administrative support occupations. Twenty percent worked in sales; 23 percent worked in service jobs; and 5 percent worked in administrative support jobs.**

- **Nearly one in five candidates (19 percent) ages 55 and older reported homemaker as their current or most recent job. The percentage of homemakers declined in younger age groups to 2 percent of candidates ages 17 and younger.**

High proportions of women candidates (50 percent) worked in sales, service, or administrative support jobs. By contrast, only one in four men candidates (23 percent) worked in these occupations. High proportions of men candidates (49 percent) worked in laborer, service, machine operator, and precision production occupations. Only three in ten (30 percent) women candidates reported these occupations. Social, economic, cultural, and personal factors influence the occupational choices and opportunities of men and women in various ways. Other factors—such as discrimination in hiring, promotion, and job referral practices—may also shape occupational patterns in different groups.

A recent national study described the literacy levels of workers aged 21 to 25 who were employed in nine broad occupational categories. The highest levels of literacy were demonstrated by persons employed in "professional," "technical," and "managerial jobs." Average levels were demonstrated by people employed in "sales," "clerical," and "service" jobs. The lowest levels were demonstrated by workers in "operative," " craft," and "laborer jobs." Although these nine occupations did not necessarily *require* the levels of literacy demonstrated by employees, the study did show that persons employed in different jobs demonstrated different levels of literacy.

In 1989, more than four in five candidates ages 18 to 24 (83 percent) reported one of these nine occupational categories as their current or most recent jobs. Nearly one in fiveof these young candidates (19 percent) reported that their current or most recent job was in professional, technical, and managerial occupations—where workers demonstrated the highest levels of literacy skills. More than two in five (41 percent) reported

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jobs in sales, clerical, and service occupations—where workers had average levels of literacy skills. More than one in five (23 percent) reported jobs that were in operative, craft, and laborer occupations—where workers demonstrated low levels of literacy skills. Therefore, more than three in five GED candidates (60 percent) reported having jobs that were those associated with average to high levels of literacy. Only one in five (23 percent) reported occupations associated with low literacy levels. The job categories reported by the remaining 17 percent of candidates were not classified in the literacy study.

The finding that young GED candidates are well represented in jobs associated with average to high levels of literacy provides additional evidence of the literacy skills of these young adults. Further research is recommended to examine in more depth the factors and issues that account for candidates' occupations.

How Much Do They Make?

In 1989, candidates reported the following levels of *household* income for 1988.

- **More than one in ten candidates (13 percent) reported annual household incomes of more than $40,000.**
- **Three in ten candidates (29 percent) reported annual household incomes between $20,000 to $40,000.**
- **More than one in four candidates (26 percent) reported annual household incomes between $10,000 and $20,000.**
- **Nearly one in three candidates (32 percent) reported annual household incomes of less than $10,000.**
- **Nearly one in five men candidates (18 percent) and one in ten women candidates (10 percent) reported annual household incomes of more than $40,000** *(Figure 4).*
- **More than one in three women candidates (36 percent) and one in four men candidates (26 percent) reported annual household incomes of less than $10,000** *(Figure 4).*
- **Forty percent of Hispanic candidates, 43 percent of Black candidates, 31 percent of Asian/Pacific Islander candidates, 28 percent of White candidates, and 50 percent of candidates of other race groups reported annual household incomes of less than $10,000 in 1989.**

Nearly three in five candidates (58 percent) reported household incomes of less than $20,000 per year. For nearly one in three, the annual household income was less than $10,000. Women were more likely than men to report household incomes of less than $10,000 per year. Hispanic candidates, Black candidates, and candidates of other races were more likely than White or Asian/Pacific Islander candidates to report annual household incomes of less than $10,000. These findings suggest that the GED Tests provide opportunities for educational advancement for many low-income women and minority group members. More than one in ten candidates (13 percent) reported annual household incomes of more than $40,000. Men were twice as likely as women (18 percent versus 10 percent) to report annual household incomes of more than $40,000.

What Are Their Employment and Educational Goals?

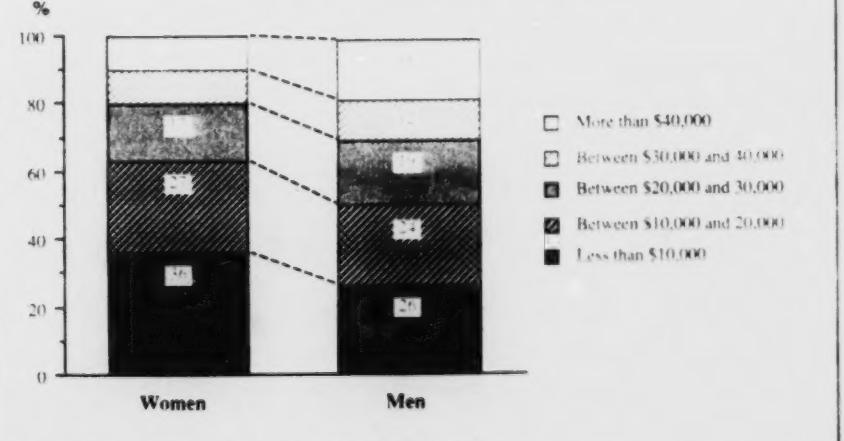
Candidates were asked to report their most important reason for taking the GED Tests, as well as their educational plans for the next year.

Most Important Reason for Taking the Tests:

- **About one in three candidates (32 percent) reported employment reasons as most important. This proportion held for employed candidates (32 percent) and increased to nearly two in five (38 percent) for unemployed candidates** *(Table 2).*
- **More than one in five candidates (22 percent) took the GED Tests to be admitted to a college or university. One in four employed candidates (24 percent) and one in five unemployed candidates (19 percent) reported this reason** *(Table 2).*
- **One in ten (11 percent) took the tests to be admitted to other postsecondary education or training programs—such as a trade, technical, or business school or a job training program. This**

Figure 4

PERCENT OF MEN AND WOMEN CANDIDATES BY ANNUAL HOUSEHOLD INCOME



Source: 1989 National Candidate Survey, American Council on Education

proportion held, generally, for candidates who were employed (9 percent) and unemployed (12 percent) *(Table 2)*.

- **About one in five candidates (22 percent) took the GED Tests to feel better about themselves. Twenty-three percent of employed candidates and 19 percent of unemployed candidates took the tests for this reason** *(Table 2)*.

- **For candidates who were *not* employed and *not* looking for jobs, the most important reasons for taking the tests were to be admitted to a college or university (24 percent), employment reasons (23 percent), and to feel better about themselves (23 percent)** *(Table 2)*.

- **Candidates of all ages listed feeling better about themselves as an important reason for taking the GED Tests. The proportion of candidates reporting this reason increased with age from 21 percent of 18- to 24-year-olds to 44 percent of candidates aged 55 and older.**

Employment and education were the primary reasons candidates gave for taking the GED Tests in 1989. Employment reasons included "get a job," "keep my job," "get a better job," "get a job promotion," "do my job better," "get a pay increase," and "work more hours." Most employed candidates who gave employment-related reasons took the tests to get a better job or a promotion.

One in three candidates took the tests to be admitted to postsecondary education institutions or job training programs; this proportion held, generally, regardless of employment status. It is notable that about one in five unemployed candidates took the tests to enroll in a college or university. These findings suggest that candidates value higher education even when they are out of work and looking for jobs.

Although one in five candidates took the tests to feel better about themselves, older candidates were more likely than younger candidates to report this reason as most important. Adults who are out of school for many years before obtaining their high school credentials may have less self-confidence and self-esteem than those who complete schooling in their youth. Policy makers and program planners should recognize that the need to feel better about themselves plays an important role in adults' decisions to seek high school completion through alternative routes.

Adults who take the GED Tests may be more likely than other high school non-completers to view attainment of the diploma as an avenue to jobs.

Table 2

CANDIDATES' MOST IMPORTANT REASON FOR TAKING THE TESTS BY EMPLOYMENT STATUS IN PERCENTS

	All	Employed for pay	Not Employed; looking for job	Employed but not for pay	Not Employed; not looking
All		50%	30%	2%	17%
Employment Reasons	32%	32%	38%	30%	23%
Admission to College.Univ	22%	24%	19%	20%	24%
Admission to Trade, Tech or Business School	9%	8%	10%	7%	11%
Admission to Job Training Program	2%	1%	2%	1%	2%
Feel better about self	22%	23%	19%	20%	23%
Become better educated	9%	8%	8%	12%	12%
Other	4%	4%	4%	10%	4%

Source: 1989 National Candidate Survey, American Council on Education

Educational Plans for the Next Year:

Candidates reported they had the following educational plans for the next year.

- **Three in ten candidates (31 percent) planned to enroll in a community college during the next year. This proportion held, generally, regardless of employment status; 33 percent of employed candidates and 28 percent of those looking for jobs reported this plan.**

- **Nearly one in four candidates (24 percent) planned to enroll in a technical, trade, or vocational school in the next year. This proportion held, generally, for candidates who were employed (22 percent) and unemployed (24 percent).**

- **One in ten candidates (11 percent) planned to enroll in a four-year college or university; 12 percent of employed candidates and 8 percent of those seeking jobs reported this plan.**

- **About one in eight candidates (14 percent) planned to take on-the-job training in the next year. Twelve percent of employed candidates and 19 percent of those seeking jobs reported this plan.**

Enrollment in postsecondary education programs—such as four year colleges or universities, community colleges, technical, trade, or vocational schools—was an important plan for candidates regardless of employment status. These findings suggest that most candidates were motivated to continue their learning whether they were employed or not. Employers, educators, and job counselors can capitalize on the educational motivations of candidates by seeking ways to increase their access to training and education programs that improve their skills and knowledge.

A recent report of the Commission on the Skills of the American Workforce recommended that all employers be given incentives to invest in the further education and training of their employees. Policy makers in government, education,

and industry who want to prepare for long-term growth, productivity, and competitiveness should develop and implement policies that support employers' efforts to improve the educational skills of their employees. In this way, workers and employers can be better prepared to respond to unpredictable changes in future job requirements.

Workplace Skills of GED Candidates

The Tests of General Educational Development measure knowledge in the subject areas of writing, social studies, science, literature and the arts, and mathematics, as well as cognitive skills such as comprehension, analysis, evaluation, and problem solving. Reading skills of candidates are measured by the GED Tests of Social Studies, Science, and Interpreting Literature and the Arts. Performance on these three tests was compared for GED candidates (examinees), GED graduates, and graduating high school seniors.

- **GED *graduates'* reading skills, on average, *surpass* those of graduating high school seniors** *(Figure 5).*

- **GED *candidates'* reading skills, on average, *equal* those of graduating high school seniors** *(Figure 5).*

Recent results from the 1989 Performance Study found that the average standard scores on the GED Tests of Social Studies, Science, and Interpreting Literature and the Arts for GED *graduates* (51, 51, and 52, respectively) exceeded those of graduating high school seniors (50 on each test). The average standard scores for GED *examinees*—a group which includes those who pass and those who do not—were equal to those of seniors (50 on each of the three tests).

Employers in service, manufacturing, and a variety of other businesses and industries across the United States have achieved some consensus on the types of basic skills they expect new employees to bring to the job. Many of these skills include reading, writing, mathematics, and problem solving—skills that are measured directly by the GED Tests. Therefore, GED scores have relevance for jobs. Successful performance on these tests serves as an indicator of higher literacy skills and provides workers with the means for acquiring further education, advanced training, and more highly skilled jobs.

Employers can encourage workers who have not completed high school to increase their skill levels by sponsoring GED programs at the job site, providing rewards for educational attainment, offering tuition-reimbursement for course work, and providing release time for attending classes.

* * *

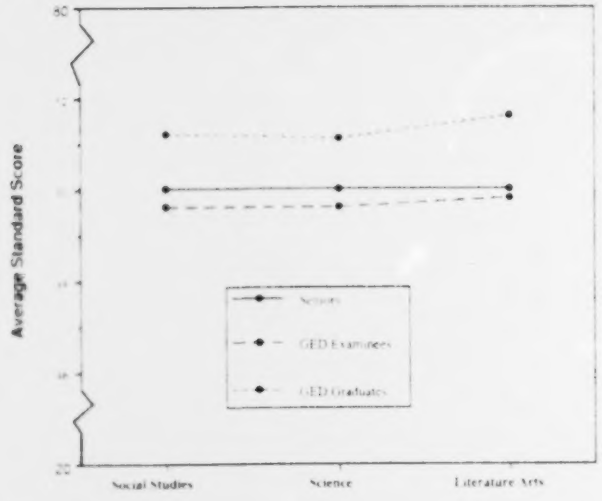
Notes: *In this report, the U.S. population comprises non-institutional civilians ages 16 and older. The U.S. workforce, as defined by the U.S. Department of Labor, comprises employed and unemployed civilians in the U.S. population. Under some conditions, those who work but not for pay—such as unpaid family workers who work 15 or more hours in a week—may be counted as employed.*

In the 1989 Performance Study, GED graduates are defined as examinees who earned a standard score of 40 or more on a given test. Although a minimum score of 40 on each of the five tests in the GED battery is a requirement widely used as a basis for awarding high school credentials, it should be noted that individuals do not obtain diplomas on the basis of any one test. Rather, decisions to award a high school diploma are made by the participating states and provinces and are based on passing standards that also require minimum total scores on all five tests.

Percent totals may not sum to 100 due to rounding error.

Figure 5

AVERAGE STANDARD SCORES ON THREE GED TESTS FOR ALL EXAMINEES, GED GRADUATES AND SENIORS



Source: 1989 GED Performance Study

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Sources of Information for GED Profiles: Adults in Transition

In 1980, the GED Testing Service conducted a national survey of persons taking the English-language version of the GED Tests. A subsequent survey was conducted in 1989 to learn how GED candidates had changed and to provide an in-depth profile of candidates' attitudes, experiences, backgrounds, and goals. In 1989, the GED Testing Service also analyzed the recent test achievement of GED examinees and graduating high school seniors. The **GED Profiles: Adults in Transition** series is based on data from these studies and from statistical reports published in 1980 and in 1989. Technical documentation for the series is provided in **GED Profiles: Technical Summaries**, which contains descriptions of samples, instruments, and procedures, as well as tables of candidate responses to questions from the 1980 and 1989 candidate surveys. This document is available from the GED Testing Service.

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What are the GED Tests and who takes them?

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By passing the GED Tests, adults earn high school diplomas and qualify for college enrollment, training programs, and job advancement. To qualify for a diploma, adults taking the GED Tests must surpass the performance of about 30 percent of a national sample of graduating high school seniors. One of every six high school diplomas awarded in the United States each year is based on the GED Tests.

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GED Profiles: Adults in Transition

GED TESTING SERVICE OF THE AMERICAN COUNCIL ON EDUCATION • NOVEMBER 1991 • NO. 4

Why Did They Drop Out? Reasons GED Candidates Give For Leaving School

by Janet Baldwin

KEY FINDINGS AND IMPLICATIONS

- Candidates' reasons for not completing high school fell into seven distinct categories: Disengagement from School; Marriage or Pregnancy; Home and Family Problems; Employment-Related Reasons; Social Behavior Problems; Shortcomings of the School; and Academic Problems. Educational policymakers should consider all these reasons when seeking to reduce high school dropout rates. Adult educators should recognize that students' reasons for not completing school may influence their attitudes toward education programs as adults.

- Nearly one in four candidates (24 percent) rated reasons related to Disengagement from School—that is, disliking school, feeling bored or unhappy in school—as most important, a larger proportion than for any other category. When these candidates studied for the GED Tests, they were more likely to choose nonformal methods—such as studying from a book or manual—than formal methods—such as attending a review class. Youth who leave school because they are disengaged may tend to avoid school-based instructional programs as adults. Adult education programs should provide alternative approaches—such as tutoring and self-paced study materials—in addition to formal instructional methods.

- Three in ten women candidates (30 percent) rated Marriage or Pregnancy as the most important reason for not completing school. This category was cited by more women than any other category. Adult education program planners can improve parents' access to education by offering child care and family support services at the program site.

- More than one in seven candidates (15 percent) rated Employment- Related Reasons as most important for not completing school. Among Hispanic candidates, the proportion was one in five (21 percent), higher than for any other race or ethnic group. Worksite programs for high school completion may enable these adults to continue their learning. In light of the low graduation rate for Hispanics, worksite programs for high school completion may be especially important in states with large Hispanic populations.

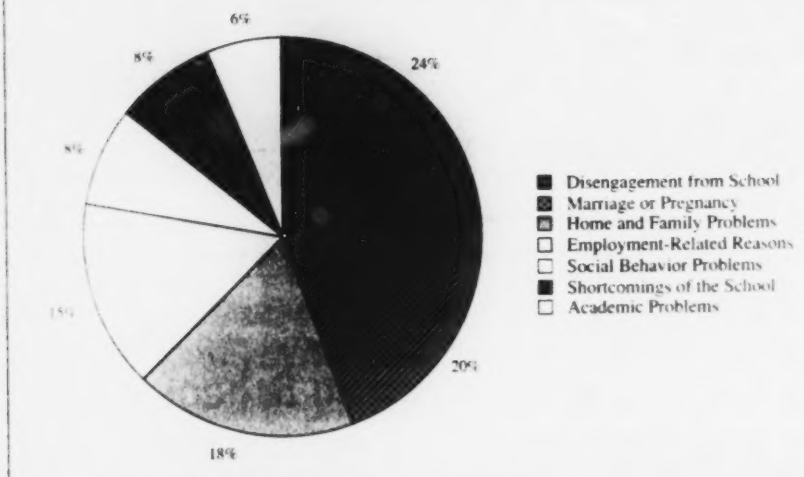
Most studies of high school dropouts compare their characteristics with students who stay in school. Other studies focus on students' academic failures or disruptive behaviors as the main causes for dropping out of school. These characteristics and behaviors may reflect shortcomings not only of individuals but also of institutions. Relatively little research has examined in detail what individuals report about their reasons for leaving school. Although self-reported perceptions are subject to the effects of memory and maturation, they may reveal patterns that are statistically reliable and theoretically useful. Understanding the reasons students leave school can help school personnel as well as adult educators to develop more effective educational programs.

Issue Highlights

- Disengagement from School reasons and Employment-Related reasons were of greatest *overall* importance as reasons for not completing school.
- Candidates who left school because of Disengagement from School were more likely as adults to choose nonformal methods of study for the GED Tests, such as study from a book or manual, than formal methods of study.

Janet Baldwin, PhD., is Assistant Director for Policy Research with the GED Testing Service.

Figure 1
CANDIDATE'S MOST IMPORTANT REASONS FOR NOT COMPLETING SCHOOL IN PERCENTS



SOURCE: 1989 National GED Candidate Survey, American Council on Education

Reasons for leaving school are interrelated, complex, and difficult to identify at the time students decide to leave. Some studies have found that poor academic performance, a low-income background, limited English proficiency, and parents without high school diplomas make a student more likely to leave school. Other studies suggest that schools may "send signals to poorly achieving students and those who are discipline problems, in a sense urging them to leave. This lack of encouragement may compound a student's personal and family problems, further reducing any desire or ability to remain in school" (Orr, 1987). While no one reason can be assumed to account for all the conditions, motives, and possibilities that are present when an individual decides to terminate formal schooling, personal, social, and economic conditions can be barriers to educational achievement.

This report examines GED candidates' reasons for leaving high school. These results are based on a national survey of 7,800 candidates conducted in the fall of 1989. GED candidates, though former school leavers, have elected to earn their high school credentials. They represent a self-selected portion of those who did not complete high school. In 1989, only 10 percent of high school dropouts under the age of 25 took the GED Tests. Thus, candidates' attitudes and perceptions may differ in important ways from those of other dropouts.

GED Profiles: Adults in Transition

GED Profiles: Adults in Transition is a series of policy-relevant reports based on research about an important segment of the adult learner population: persons who take the GED Tests. Published by the GED Testing Service of the American Council on Education (ACE), the series is available for $65 from:

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Jean Lowe, *Director*, GED Testing Service
Janet Baldwin, *Editor*

Candidates' Most Important Reasons by Category in Percents

A factor analysis of 44 reasons for not completing school suggests that these reasons fall into seven distinct categories (*Table 1*). The names given to these categories reflect the nature of the specific reasons included. These seven categories of reasons provided a simple framework for summarizing percentages of responses when candidates were asked to select the "most important" reason for not completing school.

Disengagment from School

This category reflects individuals' personal dislike for, avoidance of, or detachment from school life. This category is illustrated by the statements "Did not like school," "Wasn't happy in school," "Was bored," "Could not adjust to school routine," "Was absent too many times," "Did not feel part of the school," "Poor study habits," and "Social life was more important than school work."

- **Nearly one in four (24 percent) reported reasons related to Disengagement from School as most important, a larger proportion than for any other category** (*Figure 1*).
- **Men were more likely than women to rate Disengagement from School reasons as most important. Thirty-one percent of men and 20 percent of women left school for these reasons** (*Figure 2*).
- **White candidates (26 percent) were more likely than black (21 percent) or Hispanic (19 percent) candidates to report reasons related to Disengagement from School** (*Figure 3*).
- **Younger candidates were more likely than older candidates to rate Disengagement from School reasons as most important. The proportions declined with age, from 31 percent of candidates aged 19 and younger, to 27 percent of those aged 20 to 24, to 16 percent of those aged 25 and older** (*Figure 4*).

Disengagement from School reasons were most important for more candidates than those related to any other category. Men reported these reasons more frequently than any other category, although the proportion of women reporting them was also high. Young GED candidates were more likely than older candidates to report reasons related to Disengagement from School, and this held regardless of sex. More than one in four women (28 percent) and one in three men (34 percent) aged 19 and younger reported reasons related to Disengagement from School. For candidates aged 25 and older, 12 percent of women and 23 percent of men reported these reasons. Thus, candidates

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who left school in recent years were more likely to report these reasons than candidates who left school longer ago, and this held regardless of sex. It is not known to what extent these age differences reflect the moderating effects of memory, time, or maturation, or if they represent real differences in feelings of disengagement.

By establishing personal and caring relationships with students, school personnel may help students feel more connected to school, thus improving retention. Disengagement from School reasons warrant consideration by teachers, counselors, and administrators not only in secondary schools but also in adult education. Adults' attitudes toward their previous school experience may influence their participation in adult education and literacy programs. Indeed, youth who leave school because they feel disengaged may tend to avoid school-based study programs as adults. For these adult learners, education programs should provide alternative approaches—such as tutoring and self-paced study materials in audio, visual, or print media—in addition to formal instructional methods.

Marriage or Pregnancy

This category includes two specific reasons: "Got married" and "Got pregnant/made someone pregnant." Though these events primarily affect women's reasons for leaving school rather than men's, they are included in a separate category.

- **One in five candidates (20 percent) rated Marriage or Pregnancy as most important in not completing high school** *(Figure 1)*. **Of these, nine in ten (89 percent) were women.**
- **Three in ten women (30 percent) rated Marriage or Pregnancy as most important, compared to only 5 percent of men** *(Figure 2)*. **These reasons were reported by women as most important more often than any other category of reasons.**
- **The percentage of candidates who rated Marriage or Pregnancy reasons as most important increased with age: from 13 percent of those aged 19 and younger, to 16 percent of those aged 20 to 24, to 30 percent of those aged 25 and older** *(Figure 4)*.
- **The proportion of one in five held regardless of race or ethnic group.**

Two of the most important reasons women gave for leaving school were marriage and pregnancy. Early marriage and teenage pregnancy are known to have a disproportionate impact on women's education, creating a substantial delay in their opportunities to complete high school. Adult education programs that help parents complete high school can strengthen the family's educational resources. Strengthening the family's educational resources may improve not only the parents' educational prospects but also those of their children.

Home and Family Problems

These reasons represent a lack of family support for education. The category is illustrated by such statements as "Family problems," "Lacked a good place to study at home," "Parents did not support my education," "Had emotional problems," and "Didn't have enough money to go to school."

- **Nearly one in five candidates (18 percent) rated Home and Family**

Table 1

Reasons for Not Completing High School In Categories Derived from Factor Analysis

Disengagement from School
- 26.* Did not like school
- 36.* Wasn't happy in school
- 27.* Was bored
- 24.* Could not adjust to school routine
- 23.* Was absent too many times
- 30.* Did not feel part of the school
- 17.* Poor study habits[1]
- 34.* Social life was more important than school work
- 31. Did not get along with other students

Marriage or Pregnancy
- 06. Got married
- 41. Got pregnant/made someone pregnant

Home and Family Problems
- 40.* Family problems
- 43.* Lacked a good place to study at home
- 42.* Parents did not support my education
- 25.* Had emotional problems
- 44.* Didn t have enough money to go to school
- 38. Family moved too often
- 39. Personal/family illness
- 01. Was needed at home to care for brother(s) sister(s)

Employment-Related Reasons
- 04.* Job took too much time
- 02.* Got a job
- 05.* Couldn't work and study at the same time
- 03.* Needed money to help out at home

Social Behavior Problems
- 29.* Had problems with drugs
- 28.* Had problems with alcohol
- 37.* Got suspended/expelled
- 33.* Had problems with law/police
- 35.* School official told me to leave

Shortcomings of the School
- 08.* School did not offer the courses I wanted
- 07.* Poor teaching
- 09.* Not enough vocational/technical courses
- 21.* Wasn't learning anything
- 16.* Teachers did not help me enough[2]
- 32. Did not get along with teachers
- 19. Classes were too easy

Academic Problems
- 14.* School work was too hard
- 15.* Homework was too hard
- 13.* Poor test scores
- 20.* Classes were too hard
- 12.* Poor grades
- 10.* Had trouble with math
- 11.* Had trouble with reading
- 18. Had trouble understanding the English language
- 22. Too old for my grade

Note: *An asterisk (*) indicates reasons that are strongly related to the category (factor loading of .40 or higher).*

[1] Poor study habits" related also to the Academic Problems category. However, as it logically relates to school avoidance—which may result in academic problems—it is placed here for the purposes of this analysis.

[2] Teachers did not help me enough" related also to the Academic Problems category. As this statement logically relates to critical judgments about the school experience and influences academic problems, it is placed here for purposes of this analysis.

Problems as the most important reasons for not completing high school *(Figure 1)*; **this proportion held regardless of age, race, or ethnic group.**

- **Women candidates (22 percent) were more likely than men candidates (14 percent) to rate Home and Family Problems as most important** *(Figure 2)*.

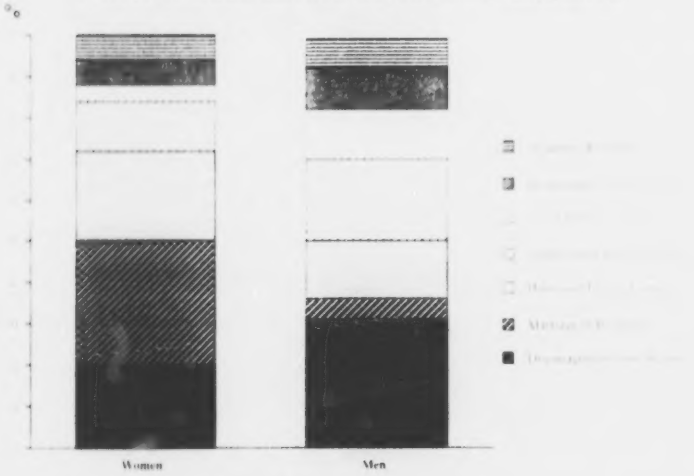
For women, the reasons related to Home and Family Problems (22 percent) were second only to Marriage or Pregnancy reasons (30 percent) as most important for not completing school. This category includes emotional, personal, and economic problems that cross age, race, and cultural boundaries. The lack of parental involvement in students' education can increase the likelihood of students' dropping out of school. Yet many families' economic circumstances limit the availability of resources or the development of skills to support education. A recent study by Coleman (1991) noted that the assets embodied in a person's relations with others in the family or in the community, known as social capital, can support student learning. Coleman suggested that schools and communities can play roles in helping families build the social capital needed to support their children's education. Adult education programs may also have a role to play in helping adult students and their families develop the social resources that support the acquisition of learning.

Employment-Related Reasons

These reasons arise from the conflicting demands of employment and school. The category includes specific reasons such as "Job took too much time," "Got a job," "Couldn't work and study at the same time," and "Needed money to help out at home." These reasons reflect both the role of economic pressures and the attraction of work in students' decisions to leave school.

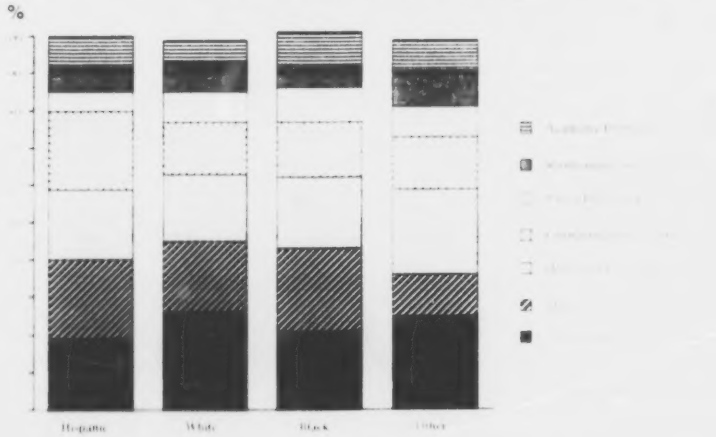
- **More than one in seven candidates (15 percent) rated Employment-Related Reasons as most important in not completing school** *(Figure 1)*.
- **Men (20 percent) were more likely than women candidates (12 percent) to rate Employment-Related Reasons as most important** *(Figure 2)*.

Figure 2
MEN & WOMEN CANDIDATES' MOST IMPORTANT REASONS FOR NOT COMPLETING SCHOOL IN PERCENTS



SOURCE: 1989 National GED Candidate Survey, American Council on Education

Figure 3
CANDIDATES' MOST IMPORTANT REASONS FOR NOT COMPLETING SCHOOL IN PERCENTS BY RACE OR ETHNIC GROUP



- **One in five Hispanic candidates (21 percent) rated Employment-Related Reasons as the most important reasons for not completing high school, a higher proportion than for any other race or ethnic group (15 percent or less)** *(Figure 3)*.
- **The proportion of candidates rating Employment-Related Reasons as most important increased with age, from 12 percent of those aged 19 and younger to 18 percent of those aged 25 and older** *(Figure 4)*.

For men, Employment-Related Reasons (20 percent) were second only to Disengagement from School Reasons (31 percent) as most important. Hispanic candidates were more likely than any other group to say they left high school for Employment-Related Reasons. The desire or need to work is a substantial deterrent to school completion for these candidates. In view of the continuing lack of improvement in the high school graduation rate for Hispanics, worksite programs for high school completion may be especially important in states with large Hispanic populations.

Social Behavior Problems

This category reflects individuals' problems with substance abuse and conflicts with school and societal authority. Specific reasons for not completing school include: "Had problems with drugs," "Had problems with alcohol," "Got suspended/expelled," "Had problems with the law/police," and "School official told me to leave." This category appears to illustrate conflicts between the individual and school or social expectations.

- **Eight percent of candidates rated Social Behavior Problems as most important** *(Figure 1)*; **this percentage held regardless of race or ethnic group.**
- **Men candidates (12 percent) were more likely than women (4 percent) to rate Social Behavior Problems as most important** *(Figure 2)*.
- **One in ten candidates aged 19 and younger (10 percent) rated Social Behavior Problems as most important, a higher proportion than for candidates aged 25 and older (5 percent)** *(Figure 4)*.

Although this category of reasons was most important for relatively few candidates, it represents an important source of conflict between students and the school. Younger candidates were more likely than older candidates and men were more likely than women to report they left school because of substance abuse and conflicts with authority.

Shortcomings of the School

This category represents candidates' perceptions of the school's failure to meet their learning needs, or their critical judgment about the quality of schooling. This category is illustrated by such specific reasons as "School did not offer the courses I wanted," "Poor teaching," "Not enough vocational/technical courses," "Wasn't learning anything," and "Teachers did not help me enough."

- **Eight percent of candidates rated reasons related to Shortcomings of the School as most important** *(Figure 1)*, **and this percentage generally held regardless of sex, age, race, or ethnic group.**

Although reasons related to Shortcomings of the School were most important for relatively few candidates, this category cuts across all major demographic groups. Candidates' reasons related to Shortcomings of the School suggest that they had learning needs and academic expectations that were not met. While Shortcomings of the School and Disengagement from School may express similarly negative attitudes toward previous school experience, the two categories are conceptually distinct. Reasons related to Disengagement from School suggest feelings of personal dislike for, detachment from, or lack of fit with school. Reasons related to Shortcomings of the School suggest students had learning needs and expectations that the school did not meet.

Academic Problems

This category represents individuals' academic difficulty in school. Illustrative statements in this category include such specific reasons as "School work was too hard," "Homework was too hard," "Poor test scores," "Classes were too hard," "Poor grades," "Had trouble with math," and "Had trouble with reading." This category reflects candidates' perceptions of their academic shortcomings.

- **Six percent of candidates rated Academic Problems as the most important reasons they did not complete high school** *(Figure 1)*. **This proportion held regardless of sex, age, race, or ethnic group.**

Although some of the literature on high school dropouts indicates that their school history is marked by low academic achievement, other studies suggest that academic difficulty is less important than other factors in explaining why students leave school. Indeed, academic difficulty plays a relatively minor role in GED candidates' decisions to leave school. The Academic Problems category accounted for the most important reasons of fewer candidates than any other category.

Candidate's responses to each of 44 reasons

The overall importance of candidates' reasons for leaving school can be evaluated by comparing the averages of candidates' ratings of reasons clustered within each category. This approach takes into account all candidates' responses to *each* of the 44 reasons for not completing high school.

- **Disengagement from School reasons and Employment-Related reasons were of greatest *overall* importance as reasons for not completing school.**

Reasons related to Disengagement from School not only were rated by most candidates as "most important," but also were highest in overall importance when all candidates' responses to each reason were considered. The category next in overall importance was Employment-Related Reasons. This suggests that employment demands represented a more pervasive influence on candidates' earlier decisions to leave school than was apparent when only "most important" reasons were considered.

Likelihood of Study for the GED Tests by Reasons for Leaving School

As reported in **GED Profiles** No. 2, (January 1991), 84 percent of candidates reported they studied for the GED Tests in some way, while 16 percent reported they did not study. These proportions held, generally, regardless of sex, age, race, or ethnic group. Nearly half (46 percent) of candidates who studied chose

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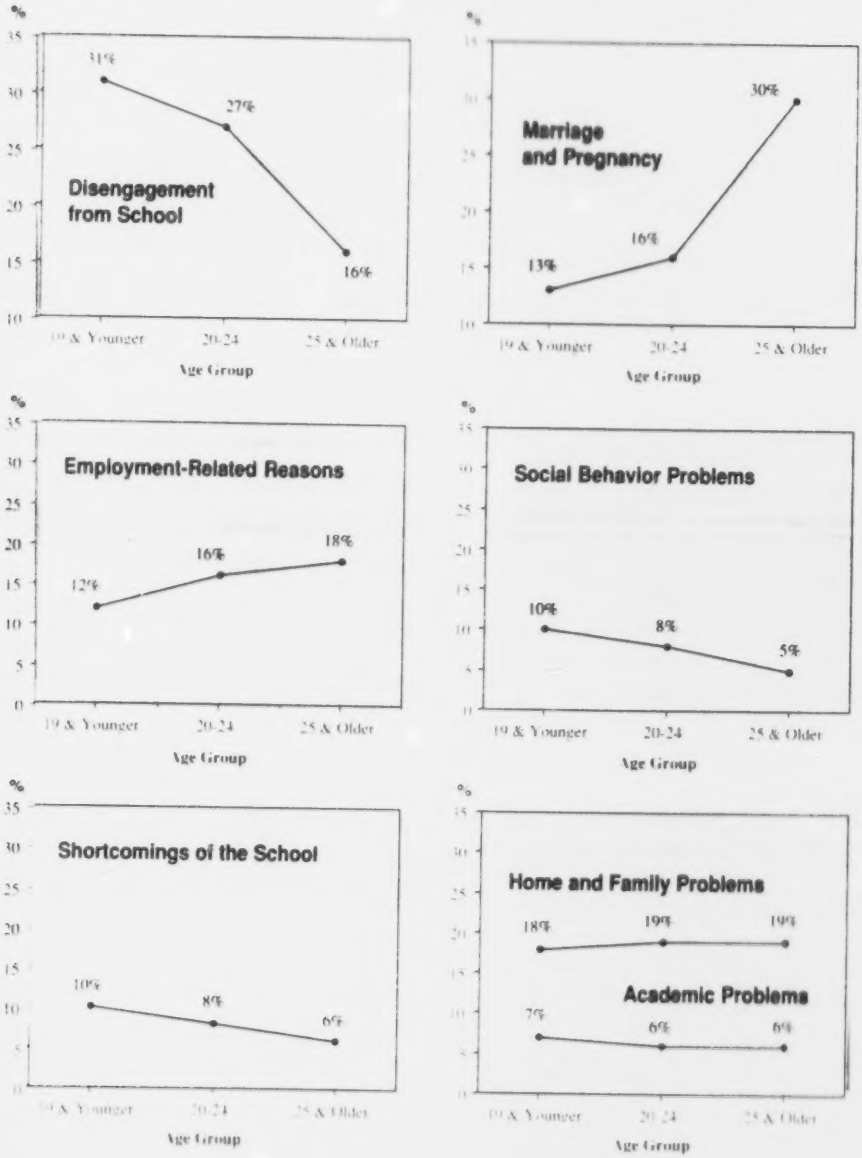
Figure 4
CANDIDATES' MOST IMPORTANT REASONS FOR NOT COMPLETING SCHOOL IN PERCENTS BY AGE



formal study programs. More than half (54 percent) chose nonformal methods.

Study versus no study

Candidates' likelihood of studying for the GED Tests was examined in light of their reasons for not completing school. That is, to what extent do reasons for dropping out of school predict whether candidates will or will not study for the GED Tests?

- **Two catagories of reasons were found to be related to candidates' likelihood of study: Shortcomings of the School and Academic Problems.**

Candidates who left school because of Shortcomings of the School were more likely as adults *not* to study for the GED Tests than to study. This finding suggests that these candidates may be confident of their academic skills and know what they want from their education programs. However, it is not known whether these candidates were less likely to study because they did not need to study or because of other reasons, such as their negative attitudes toward schooling. Future research should examine the relationship among reasons for leaving school, study method preferences, learning style, teaching method differences, and academic ability.

Candidates who left school because of Academic Problems were more likely *to* study for the GED Tests than not to study. These candidates may have recognized that they lacked the academic skills needed for high school completion and chose to study in order to develop those skills before taking the GED Tests.

Formal versus nonformal

Candidates who studied for the GED Tests also indicated what method they chose. Formal study was defined as attending a GED review class or a learning center. Nonformal study was defined as studying from a GED book or manual, working with a tutor, taking the Official GED Practice Test, or some other method. Candidates' study method preferences were evaluated in light of their reasons for not completing school. That is, to what extent do reasons for not completing school predict candidates' likelihood of choosing formal or nonformal methods of study for the GED Tests?

- **Two categories of reasons related to preferred study methods: Academic Problems and Disengagement from School.**

Candidates who left school because of Academic Problems were more likely to choose formal methods of study for the GED Tests than nonformal methods. These candidates may prefer a structured class setting or a learning center environment to develop the skills needed for the GED Tests. Adult education counselors and teachers should consider the nature of candidates' academic problems in high school in order to recommend appropriate educational programs for adults seeking a high school diploma.

Candidates who left school for Disengagement from School reasons were more likely to choose nonformal methods of study for the GED Tests, such as study from a book or manual, than formal methods of study. Some research suggests that dislike for school may explain why some adults do not participate in school-based adult education programs. Indeed, Beder (1991) has noted that nonparticipation in adult education programs is "a phenomenon nested in the entire educational system". If previous school experience is important in shaping attitudes toward participation in adult

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education programs, then developers of these programs need to reduce or eliminate school-related characteristics, which many adults seek to avoid.

The findings from this study suggest that adult educators should examine previous schooling experiences in order to recommend appropriate educational strategies for adult learners. Individuals' feelings and attitudes toward the school experience may be as important as their academic history in shaping interest in education programs as adults. Further research is needed to examine in greater depth the relationship between reasons for leaving school and adults' subsequent educational progress.

* * *

Sources of Information for GED Profiles: Adults in Transition

In 1980, the GED Testing Service conducted a national survey of persons taking the English-language version of the GED Tests. A subsequent survey was conducted in 1989 to learn how GED candidates had changed and to provide an in-depth profile of candidates' attitudes, experiences, backgrounds, and goals. In 1989, the GED Testing Service also analyzed the recent test achievement of GED examinees and graduating high school seniors. The **GED Profiles: Adults in Transition** series is based on data from these studies and from statistical reports published in 1980 and in 1989. Technical documentation for the series is provided in **GED Profiles: Technical Summaries**, which contains descriptions of samples, instruments, and procedures, as well as tables of candidate responses to questions from the 1980 and 1989 candidate surveys. This document is available from the GED Testing Service.

* * *

Notes on Methods

The 1989 National Candidate Survey was administered to a national sample of 7,800 adults who took the fall 1989 English-language GED Tests in more than 200 GED Testing Centers throughout the United States. The survey form included 44 statements of reasons for not completing high school (see Table 1). These statements were derived from a review of the research literature on high school dropouts, on studies of frequently cited reasons for leaving school, and on studies of reasons for nonparticipation in adult education programs. Although these reasons cover a broad range of motives, there may be reasons for leaving school that were not included in this survey.

Candidates were asked to "indicate how true the reason is for you" ("NOT TRUE," "SOMEWHAT TRUE," or "VERY TRUE"). Values of 0, 1, and 2, respectively, were assigned to these responses. Sample sizes of candidate responses to these reasons ranged from 7,130 to 7,257. The average mean raw scores for each category are: Disengagement from School (.682), Employment-Related Reasons (.502), Marriage or Pregnancy (.390), Academic Problems (.363), Home and Family Problems (.339), Shortcomings of the School (.336), and Social Behavior Problems (.227).

Factor analysis (Varimax, SPSS) was applied to these data. This approach seeks to determine the number and the nature of underlying processes that explain the relationships among a larger number of items. Each factor was defined by clusters of items that related more strongly to one another than to other items. Such an approach is especially useful when seeking to interpret a wide range of complex survey items such as reasons GED candidates give for having left high school.

Thirty-four of the 44 reasons were strong measures of their respective factors (factor loadings were .40 or higher). The remaining ten reasons were weakly related to any factor (factor loadings less than .40), suggesting that they contributed little information to the meaning of the six factors. However, because these analyses were exploratory in nature, no item was omitted from them.

Seven categories of reasons were defined. Six categories were identified on the basis of factor analysis. A seventh category included reasons related to marriage and pregnancy. These two reasons were statistically unrelated to the other reasons for leaving school, most likely because they are events that primarily affect women's reasons for leaving school and they have measurement properties unlike the other reasons. That is, they tend to be dichotomous rather than continuous. Because they are important in their own right, these reasons are included in a seventh category.

In addition to responses to each of the 44 reasons, candidates also were asked to select "The most important reason you dropped out of school." The percentages of candidates reporting these reasons as "most important" were based on a sample of 6,033. These percentages were summarized and reported for each of seven categories. Missing data were omitted from these calculations.

Finally, factor scores were used to predict the likelihood of a candidate's being in one or the other of these groups: Study versus no study and formal versus nonformal study. A logistic regression procedure (SPSS) was used to predict the probability of group membership as a result of candidates' factor scores. Significance tests of the coefficients were applied at an alpha level of .05.

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Upcoming . . .

Future issues of *GED Profiles: Adults in Transition* will address:

- GED Test performance of adult examinees and high school seniors
- Employment experiences of men and women plus young, middle age and older candidates

GED Profiles: Adults in Transition *was produced on an Apple Macintosh II computer using Microsoft Word and Aldus PageMaker 4.01 software.*

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GED Profiles: Adults in Transition

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GED Test Performance of Adult Examinees and High School Seniors

by Janet Baldwin

This study compares the performance of GED examinees (whom we will refer to as "GED candidates"[1]) and people who passed the GED Tests ("GED graduates"[2]) with the performance of graduating high school seniors ("seniors") on each of the five Tests of General Educational Development. Test results of GED graduates are based on the performance of GED candidates who earned a standard score of 40 or better on any one test. Test results of seniors are based on the performance of nationally representative samples of high school seniors who participated in the standardization studies for the GED Tests in the spring of 1987 and 1988.[3]

What do the GED Tests measure?

The content of the English-language edition[4] of the GED Tests corresponds to what graduating high school seniors in the United States are expected to know. The combined efforts of educators from the adult education and secondary education communities led to the design of the GED Tests introduced in 1988. These GED Tests require an essay and demand more highly developed levels of critical thinking and problem solving than previous versions. In addition, test questions reflect the many roles of adults (such as worker, family member, consumer, and citizen) and contain settings that adult examinees will recognize as relevant to daily life.

The GED Tests are organized into the following five subject areas that correspond to the general framework of high school curricula: writing skills, social studies, science, interpreting literature and the arts, and mathematics. However, many skills are common across the tests. For example, the ability to read, comprehend, and analyze written material is a skill needed for all five tests. Examinees are tested on their knowledge of broad concepts and on their ability to use knowledge, information, and skills to

KEY FINDINGS AND IMPLICATIONS

- The overall performance of GED graduates, averaged over all five GED Tests, equaled that of graduating high school seniors. College admissions officers and registrars should recognize that, on average, the academic skills of GED graduates are comparable to those of seniors. Employers should consider GED graduates for positions that require a high school diploma.
- GED graduates' performances on the Social Studies, Science, and Interpreting Literature and the Arts Tests surpassed those of seniors. These findings suggest that, on average, adults who pass these GED Tests have content knowledge and skills in social studies, science, and literature and the arts that exceed the knowledge and skill levels of graduating high school seniors. Moreover, GED graduates are proficient in reading comprehension, interpretation, and analysis as measured by these three tests.
- Seniors demonstrated higher skill levels in mathematics and essay writing than GED graduates; the error correction and editing skills of both groups were equivalent. Skill levels in mathematics and writing may depend more on recent formal instruction and practice than do skill levels in other areas. Thus, some adult learners may need access to various instructional methods, materials, and programs to improve these skills. Adult education providers should include mathematics and writing instruction among the programs they offer adults seeking to study for the GED Tests.

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solve problems. The GED Tests measure comprehensive, integrated skills rather than isolated fragments of learning from individual disciplines.

Questions used on the GED Tests are classified according to an adaptation of Bloom's taxonomy.[5] Questions that require the cognitive skills of comprehension, application, and analysis appear in all five tests. Only the essay in Part Two of the Writing Skills Test reflects the skill of synthesis. While evaluation questions appear specifically in the Social Studies and Science Tests, some evaluation skills are required in writing the essay and in setting up solutions to problems on the Mathematics Test. The sections below describe content measured by each test. The Official Teacher's Guide to the Tests of General Educational Development[6] gives more detailed descriptions.

The basis for equivalence to high school outcomes

For 50 years, the American Council on Education has based the claim of equivalence for the GED Tests on two logical foundations: (1) the tests are constructed from a representative sampling of high school curricular content and skills, and (2) GED candidates' test performances are evaluated by comparing their test scores to the demonstrated achievement of recent graduating high school seniors. The seniors' test scores provide the basis for the GED score scales and passing score requirements. The distribution of these scores is used to determine the criterion for awarding a GED credential. That is, to pass these tests and become GED graduates, GED examinees must achieve scores that surpass the achievement of about 30 percent of graduating high school seniors.[7] Requiring GED graduates to meet this level of achievement provides a minimum passing standard that is neither so high that it represents a level of achievement far above that demonstrated by recent high school graduates (which would be unfair to adult GED candidates), nor so low that people would consider the GED Tests an easy way to get a diploma.

The GED Testing Service revises and renorms the GED Tests whenever there is evidence of substantial changes in either the high school curriculum or the achievement levels of high school seniors. The most recently revised tests were normed in 1987 and introduced in 1988.[8] By developing score scales based on the performance of seniors who will soon graduate from high school, it is possible to compare their scores to examinees' scores. The rationale for this approach is that the skills required to receive a traditional high school diploma should be comparable to those required for a GED credential. The U.S. English-language edition of the GED Tests uses score scales based on the achievement levels of a national sample of graduating high school seniors in the United States. This report presents test score results of people who have taken the U.S. English-language edition of the GED Tests.

Acceptance of the GED credential

The GED Tests are accepted as a valid means for awarding high school equivalency credentials by all 50 states, the District of Columbia, nine U.S. territories or possessions, and ten Canadian provinces and territories. These official documents are widely accepted as valid high school completion credentials by employers and directors of apprenticeship and training programs. In addition, almost all college and university admissions policies accept the GED credential or an official GED score report in place of a high school diploma or a completed high school transcript[9].

Major Findings

- **The overall performance of GED graduates, averaged over all five GED Tests, equaled that of seniors.**
- **GED graduates' performance on the Social Studies, Science, and Interpreting Literature and the Arts Tests surpassed the scores of seniors.**

What Do the Test Scores Mean?

The five tests in the GED battery use multiple-choice questions. The Writing Skills Test also includes an essay section. "Standard scores" on each GED Test are derived from the number of correct answers, or raw scores, of our national sample of graduating high school seniors. Seniors' raw scores on each of the five GED Tests are converted to a standard score scale that has an average of 50, a standard deviation of 10, and a range from 20 to 80. The standard score scale provides a baseline of seniors' test performance against which to compare the test performance of GED candidates. About 30 percent of all GED candidates do not pass the GED Tests.[10]

"Percent-correct scores" are the percentage of correctly answered questions out of the total number of questions. That is, the number of questions a person answers correctly, divided by the total number of questions on the test, will yield that person's percent-correct score. We calculated average percent-correct scores for seniors, GED candidates, and GED graduates for each test and for content and skill areas within each test.

"Essay scores" are based on a scale from 2 to 12, not on percentages. These holistic essay scores are assigned by trained raters who apply the GED scoring guide to essay writing samples. Results from the essay and multiple-choice portions of the Writing Skills Test are combined to form a composite score on which that test's standard score is based.

GED Profiles: Adults in Transition

GED Profiles: Adults in Transition is a series of policy-relevant reports based on research about an important segment of the adult learner population: people who take the GED Tests. Published by the GED Testing Service of the American Council on Education (ACE), the series is available for $65 from ACE Publications Dept. PAT, One Dupont Circle, Washington, DC 20036.

Robert H. Atwell, *President*
Hoke Smith, Board *Chair*, ACE
Henry Spille, *Director*, Center for Adult Learning and Educational Credentials
Jean Lowe, *Director*, GED Testing Service
Janet Baldwin, *Editor*

■ **Seniors demonstrated higher levels of achievement on the Writing Skills and Mathematics Tests than GED graduates.**

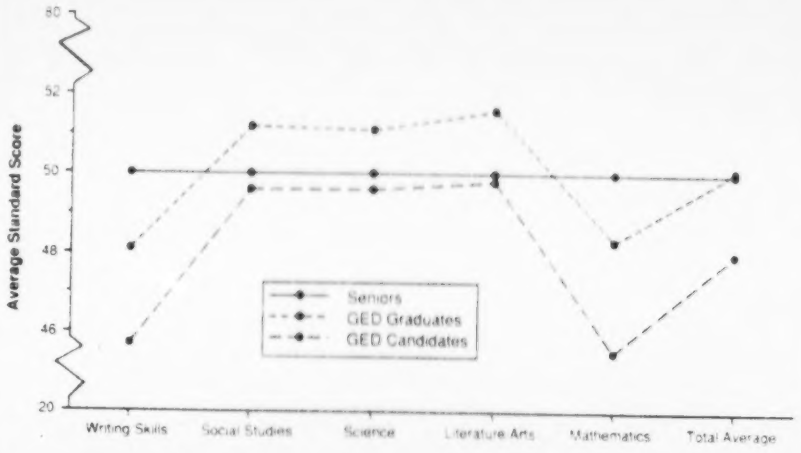
The average standard score on each test for graduating high school seniors is 50. GED graduates earned higher average standard scores than seniors on the Social Studies Test (51), the Science Test (51), and the Interpreting Literature and the Arts Test (52). These tests measure content knowledge and skills in those three areas, as well as the ability to read, understand, apply, and use written information. The strong performance of GED graduates on these three tests suggests that, on average, adults who pass the GED Tests are proficient in reading comprehension and higher order critical thinking skills.

Nearly nine in ten GED candidates are aged 18 or older; about 50 percent are between the ages of 18 and 24.[11] Any study of skills possessed by both young and older *adults* will necessarily reflect learning acquired not only in formal schooling but also in non-formal settings, such as the home, workplace, or community. Indeed, as noted in a recent study of young adult literacy by the National Assessment of Educational Progress (NAEP), "education can be derived from family instruction, from self study, from observations made during travel; from newspaper, magazine, and book reading; from radio and television listening and watching; and from a variety of other activities."[12] We do not know to what extent GED graduates obtained these skills in formal schooling or in activities in non-formal settings.

Seniors performed better than GED graduates on two tests—Writing Skills and Mathematics. GED graduates' average standard score on each of these tests was 48, compared to the seniors' average standard score of 50. Skill levels in mathematics and writing may depend more on recent formal instruction and practice than do skill levels in other areas. In spite of these differences on individual tests, the overall performance of GED graduates, averaged over all five tests, equaled that of seniors.

Previous issues of **GED Profiles: Adults in Transition** reported that when preparing to take the GED Tests, fewer than half of the candidates chose formal study programs (attending a review class or learning center) and more than half chose informal study methods (studying from a book or manual, working with a tutor, taking the Official GED Practice Test, or other methods).[13] Thus, developers of instructional resources should recognize that adults need access to both formal and non-formal educational strategies. Directors of adult education programs should provide a wide range of instructional methods, materials, and resources suitable for the diverse learning needs of adults.

Figure 1
AVERAGE STANDARD SCORES ON THE TESTS OF GENERAL EDUCATIONAL DEVELOPMENT (GED) FOR SENIORS, GED GRADUATES, AND GED CANDIDATES



Source: The 1989 GED Performance Study

Results by Test

Writing Skills Test

The Writing Skills Test consists of two parts. Part One is a set of multiple-choice items that measure a person's ability to edit sentences and correct errors within the context of one or more paragraphs. Part Two is an essay that measures a person's ability to compose an original, well-written response on a single topic. The content areas measured in Part One are sentence structure (35 percent of the items), which covers sentence fragments, run-on sentences, and parallelism; usage (35 percent), which covers subject-verb agreement, verb tense errors, and pronoun reference; and mechanics (30 percent), which covers capitalization, punctuation, and spelling.

The multiple-choice items in Part One measure the cognitive skills of comprehension and application and account for nearly two-thirds of the composite score for the Writing Skills Test. The essay in Part Two measures the cognitive skill of synthesis and accounts for more than one-third of the total score. *See Table 1 for a comparison of test scores.*

Total Test Performance

■ **GED graduates' editing and error correction skills, on average, were equivalent to those of seniors. Both groups, on average, correctly answered three of every four multiple-choice writing skills questions (77 and 76 percent correct, respectively).**

■ **Seniors, on average, demonstrated somewhat better essay writing skills than GED graduates. Seniors' average score of 6.8 of a possible 12 points on the essay surpassed GED graduates' average score of 6.4.**

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Performance by Content Area

- **GED graduates, on average, correctly answered about three of four questions on sentence structure (76 percent), usage (77 percent), and mechanics (76 percent), which equaled the performance of seniors.**

Performance by Item Type

- **GED graduates, on average, correctly answered at least three of every four questions using sentence correction (76 percent), sentence revision (75 percent), and construction shift (82 percent) formats, which equaled the performance of seniors.**

GED graduates' editing and error correction skills, on average, were equivalent to those of graduating high school seniors, and this held for all content areas and item types. GED graduates' essay writing skills, though comparable to those of seniors, were somewhat less well developed.

In recent years, high schools have placed increased emphasis on writing instruction and practice. A study of NAEP writing trends[14] found that the writing achievement of 17-year-olds improved somewhat from the early 1980s to the mid-1980s. Data from GED standardization studies conducted during the past decade indicated a similar improvement in the writing skills of graduating high school seniors from 1983 to 1985. From 1985 to 1989, these skills remained level.[15]

The error correction and essay writing skills of GED *candidates*, on average, were less developed than those of seniors. Thus, adults who take the tests may need to improve these skills. Publishers, developers of instructional resources, program directors, and teachers should provide instruction, exercises, and practice in essay writing and in writing for other purposes to help adults develop these skills.

Table 1
AVERAGE PERCENT-CORRECT SCORES AND AVERAGE ESSAY RAW SCORES ON THE WRITING SKILLS TEST[a] FOR SENIORS, GED GRADUATES, AND GED CANDIDATES BY CONTENT AND ITEM TYPE

	Seniors	GED Graduates	GED Candidates
Total Test	76%	77%	71%
Content			
Sentence Structure	75	76	70
Usage	75	77	71
Mechanics	77	76	71
Item Type			
Sentence Correction	75	76	70
Sentence Revision	74	75	69
Construction Shift	80	82	77
Essay	6.8	6.4	6.0

[a] Part One of the Writing Skills Test includes 50 multiple-choice questions that count toward a person's score. Part Two consists of a written essay holistically rated on a scale of 2 to 12 raw score points. The essay accounts for about one-third of a person's total composite score.

Source: The 1989 GED Performance Study

Social Studies Test

The Social Studies Test[16] poses questions about important concepts and issues in history, economics, political science, geography, and behavioral science. All questions are based on either a written or a graphic stimulus. Questions are divided among these topics: history (25 percent), economics (20 percent), political science (20 percent), geography (15 percent), and behavioral science (20 percent). Primary emphasis is on measuring integrated, comprehensive skills and concepts learned from an overall study of social studies rather than on discrete facts from various subject areas. Test items are designed to measure the cognitive skills of comprehension (20 percent of the test), application (30 percent), analysis (30 percent), and evaluation (20 percent). *See Table 2 for a comparison of test scores.*

Total Test Performance

- **GED graduates' content knowledge and skills in social studies surpassed those of seniors. GED graduates correctly answered an average of 69 percent of these questions, 4 percentage points higher than seniors.**

Performance by Content Area

- **GED graduates correctly answered, on average, at least two of three questions in history, geography, economics, political science, and behavioral science, surpassing the scores of seniors in each content area by 2 to 5 percentage points.**

Performance by Cognitive Skill Area

- **GED graduates correctly answered, on average, between 64 percent and 73 percent of the questions measuring comprehension, application, analysis, and evaluation skills. These scores surpassed the scores of seniors in each skill area by 3 to 5 percentage points.**

GED graduates' reading comprehension and critical thinking skills in social studies surpassed those of graduating seniors. The four percentage-point difference in performance means that GED graduates, on average, correctly answered nearly two and one-half more questions than seniors on this 60-item test. Thus, GED graduates demonstrated higher levels of content knowledge and skills in social studies than seniors. GED graduates' superior performance held for all content areas and all cognitive skills measured by the Social Studies Test.

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Science Test

Half of the questions on the Science Test address subject matter drawn from the life sciences (biology) and half from the physical sciences (earth science, physics, and chemistry). Like the Social Studies Test, the Science Test measures integrated concepts and principles rather than isolated facts. Science questions are based on either written or graphic stimuli. Items are related to concepts that cut across all disciplines of science—conservation of mass and energy, change, interactions, relationships, and time and space. Half the questions on this test emphasize abstract reasoning and problem solving at the cognitive levels of analysis (30 percent) and evaluation (20 percent), while the remaining questions measure the skills of comprehension (20 percent) and application (30 percent). All questions require examinees to use information provided in the test items or acquired through life experience. *See Table 3 for a comparison of test scores.*

Total Test Performance

- **GED graduates' knowledge and skills in science surpassed those of seniors. GED graduates correctly answered an average of 71 percent of the science questions, 4 percentage points higher than seniors.**

Performance by Content Area

- **GED graduates, on average, correctly answered at least two of three questions in biology, earth science, physics, and chemistry, surpassing the scores of seniors in each content area by 3 to 4 percentage points.**

Performance by Cognitive Skill Area

- **GED graduates correctly answered, on average, between 68 percent and 73 percent of the questions measuring comprehension, application, analysis, and evaluation. These scores surpassed the scores of seniors in each cognitive skill by 3 to 5 percentage points.**

As with the Social Studies Test, GED graduates' content knowledge, comprehension, and critical thinking skills in science surpassed those of seniors. On average, GED graduates correctly answered nearly two and one-half more questions than seniors on this 60-item test. Thus, GED graduates demonstrated higher levels of content knowledge and skills in science than seniors. Their superior performance held for all content areas and cognitive skills measured by the Science Test.

Table 2

AVERAGE PERCENT-CORRECT SCORES ON THE SOCIAL STUDIES TEST[a] FOR SENIORS, GED GRADUATES, AND GED CANDIDATES BY CONTENT AND SKILL AREA

	Seniors	GED Graduates	GED Candidates
Total Test	65%	69%	65%
Content			
History	65	70	66
Geography	66	68	64
Economics	65	69	65
Political Science	61	66	62
Behavioral Science	68	71	67
Cognitive Skill			
Comprehension	69	73	69
Application	68	71	67
Analysis	61	64	60
Evaluation	64	69	65

[a] The Social Studies Test includes 60 questions that count toward a person's score.

Source: The 1989 GED Performance Study

Table 3

AVERAGE PERCENT-CORRECT SCORES ON THE SCIENCE TEST[a] FOR SENIORS, GED GRADUATES, AND GED CANDIDATES BY CONTENT AND SKILL AREA

	Seniors	GED Graduates	GED Candidates
Total Test	67%	71%	67%
Content			
Biology	70	74	70
Earth Science	62	66	62
Physics	65	68	65
Chemistry	64	68	64
Cognitive Skill			
Comprehension	68	73	68
Application	70	73	69
Analysis	64	68	64
Evaluation	65	70	66

[a] The Science Test includes 60 questions that count toward a person's score.

Source: The 1989 GED Performance Study

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Table 4

AVERAGE PERCENT-CORRECT SCORES ON THE INTERPRETING LITERATURE AND THE ARTS TEST[a] FOR SENIORS, GED GRADUATES, AND GED CANDIDATES BY CONTENT AND SKILL AREA

	Seniors	GED Graduates	GED Candidates
Total Test	71%	75%	70%
Content			
Popular Literature	72	77	72
Classical Literature	71	75	70
Commentary	68	72	67
Cognitive Skill			
Literal Comprehension	72	77	72
Inferential Comprehension	70	74	69
Application	70	75	71
Analysis	70	74	69

[a] The Interpreting Literature and the Arts Test includes 40 questions that count toward a person's score.

Source: The 1989 GED Performance Study

Interpreting Literature and the Arts Test

The Interpreting Literature and the Arts Test is based on selected passages that require examinees to demonstrate their reading and interpretive skills. About half the questions use reading selections drawn from popular literature, while the remaining questions use selections drawn from classical literature and from commentary on the arts. Reading selections range in length from 200 to about 400 words. Genres include fiction, prose, non-fiction, poetry, and drama. While most literature selections are by American authors, English and Canadian authors are also represented, as are definitive translations of excerpts from world literature. Questions on the Interpreting Literature and the Arts Test measure an examinee's ability to understand what is read (30 percent), to draw inferences and conclusions (30 percent), to apply interpretations to new contexts (15 percent), and to analyze style and explore the relationship among ideas (25 percent). *See Table 4 for a comparison of test scores.*

Total Test Performance

- **GED graduates' content knowledge and interpretive skills in literature and the arts surpassed those of seniors. GED graduates, on average, correctly answered 75 percent of the literature and the arts questions, 4 percentage points higher than seniors.**

Performance by Content Area

- **GED graduates, on average, correctly answered about three of four questions in popular literature (77 percent), classical literature (75 percent), and commentary (72 percent). Their scores surpassed the scores of seniors in each area by 4 to 5 percentage points.**

Performance by Cognitive Skill Area

- **GED graduates, on average, correctly answered about three of four questions in literal comprehension (77 percent), inferential comprehension (74 percent), application (75 percent), and analysis (74 percent). Their scores surpassed those of seniors in each area by 4 to 5 percentage points.**

The gap of four percentage points on the Interpreting Literature and the Arts Test means that GED graduates correctly answered about one and one-half more questions than seniors on this 40-item test. Thus, GED graduates demonstrted higher levels of content knowledge and skills in literature and the arts than seniors. In addition, GED graduates' performance on this test provides evidence that they have strong skills in comprehending and interpreting written information. Indeed, a NAEP survey of the literacy skills of young adults[17] found that young adult dropouts with strong literacy skills were more likely to seek a GED credential after leaving high school than other dropouts. Moreover, those young adults who acquired the GED "had literacy scores well above both those who never studied for a GED and those who studied for, but did not receive the GED."[18] Thus, the authors concluded, passing the GED Tests appears to be "a proxy for higher literacy proficiencies."[19]

Mathematics Test

The subject matter for the GED Mathematics Test is drawn from the areas of arithmetic (50 percent), which includes measurement, number relationships, and data analysis; algebra (30 percent); and geometry (20 percent). About one-third of all the test questions are based on graphic stimulus material and two-thirds on textual stimuli. Although some mathematical skills cross the boundaries of the content areas defined above, for the most part, mathematics items represent the cognitive level of application. Examinees must comprehend the stimulus material and apply their mathematical knowledge and problem-solving abilities. For this reason, mathematics item classifications are not based on the adaptation of Bloom's taxonomy used in the Social Studies, Science, and Interpreting Literature and the Arts Tests. However, about 25 percent of the mathematics questions require examinees to identify an effective approach, or set-up, for solving the problems; these questions measure higher order mathematical thinking skills. On the remaining 75 percent, examinees must work through problems to find a specific solution. *See Table 5 for a comparison of test scores.*

Total Test Performance

- **Seniors' mathematical skills surpassed those of GED graduates.**

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Table 5

AVERAGE PERCENT-CORRECT SCORES ON THE MATHEMATICS TEST[a] FOR SENIORS, GED GRADUATES, AND GED CANDIDATES BY CONTENT AND BY SET-UP AND SOLUTION

	Seniors	GED Graduates	GED Candidates
Total Test	70%	66%	59%
Content			
Measurement	71	72	65
Algebra	72	67	59
Geometry	62	53	47
Number Relationships	71	62	56
Data Analysis	74	74	66
Set-up	69	67	60
Solution	70	66	59

[a] The Mathematics Test includes 50 questions that count toward a person's score.

Source: The 1989 GED Performance Study

Seniors correctly answered an average of 70 percent of all mathematics items, 4 percentage points higher than GED graduates.

Performance by Content Area

- **GED graduates, on average, correctly answered 72 percent of the measurement questions on the mathematics test, equaling the performance of seniors.**
- **GED graduates, on average, correctly answered about three of four data analysis questions, equaling the performance of seniors.**
- **Seniors, on average, correctly answered 72 percent of the algebra questions, 62 percent of the geometry questions, and 71 percent of the number relationship questions. These scores surpassed the scores of GED graduates in each area by 5 to 9 percentage points.**

Performance by Set-up and Solution

- **GED graduates' performance on questions that required them to identify a correct set-up for solving mathematical problems was comparable to that of seniors. Seniors, on average, correctly answered 69 percent of these questions while GED graduates correctly answered 67 percent.**
- **Seniors, on average, correctly answered 70 percent of questions requiring specific solutions to mathematics problems. This performance surpassed that of GED graduates by 4 percentage points.**

Seniors demonstrated higher levels of overall mathematics skills than GED graduates. The gap in average percent-correct scores between seniors and GED graduates on the total test was 4 percentage points. This means that seniors, on average, correctly answered two more questions than GED graduates on this 50-item test. On measurement and data analysis questions, the performance of GED graduates equaled that of seniors. However, seniors outperformed GED graduates in the areas of algebra, geometry, and number relationships. In practical terms, the differences in performance in each of these content areas means that seniors, on average, correctly answered one-half to one more question. GED graduates' abilities to identify a correct set-up for solving mathematical problems were essentially equal to those of seniors. The 2 percentage-point difference between GED graduates and seniors in this area represents, on average, only one-fourth of a correct answer. On questions requiring specific mathematical solutions, the four percentage-point difference in achievement means that seniors correctly answered, on average, one and one-half more questions.

The average percent-correct score on the Mathematics Test for all GED *candidates* was 11 percentage points lower than that of seniors, representing an average difference of five and one-half correctly answered questions. In each content area, the gap between GED candidates and seniors ranged between 6 percent and 15 percent. These results suggest that many candidates require instruction, study, and practice in all content and skill areas measured by the GED Mathematics Test. Improving candidates' ability to solve problems and to apply mathematics concepts and skills in realistic situations could lead to improved total test performance.

Notes

[1]GED candidates' results are based on analyses of examinees' test performance on GED Test forms AA through AF, which were processed during calendar year 1989. Average scores for GED candidates on the Writing Skills Test are based on samples of more than 220,000 for percent-correct scores, more than 145,000 for standard scores, and more than 100,000 for essay scores. Average scores for the Social Studies Test, Science Test, Interpreting Literature and the Arts Test, and Mathematics Test are based on samples of more than 210,000 per test (percent-correct scores and standard scores).

[2]For this study, GED graduates are those GED candidates who earned a standard score of 40 or more on a given test. Although a minimum standard score of 40 on each test in the GED battery is a requirement widely used as a basis for passing the tests and for awarding a high school diploma, readers should note that individuals do not qualify for diplomas on the basis of any one test. Rather, decisions to award a high school diploma are made by the participating states and provinces and are based on passing standards that also require minimum total scores on all five tests.

[3]Sample sizes for seniors include more than 4,600 students per test who participated in the national norming study for forms AA, AB, and AC of the GED Tests in spring 1987, and about 2,000 students per test who participated in the national equating study for forms AD, AE, and AF in spring 1988.

[4]Other editions of the GED Tests include the Canadian English-language edition, which is normed on Canadian high school seniors; the Spanish-language edition, which is normed on Puerto Rican high school seniors; and the French-language edition, which is normed on Canadian high school seniors in New Brunswick.

[1]Bloom, B.S.; Engelhart, M.D.; Furst, E.J.; Hill, W.H.; and Krathwohl, D.R. (1956). Taxonomy of Educational Objectives Handbook I: Cognitive Domain. New York: David McKay. Questions classified at higher levels—such as analysis, synthesis, and evaluation—also require the use of skills classified at lower levels—such as comprehension and application.

[2]GED Testing Service (1987). The Official Teacher's Guide to the Tests of General Educational Development. Washington, DC: American Council on Education.

[3]GED Testing Service (1991). GED Examiner's Manual. Washington DC: American Council on Education.

[4]Previous norming studies were conducted in 1943, 1955, 1967, 1977, and 1980.

[5]GED Testing Service (1991). Teacher's Manual for the Official GED Practice Tests, Third Edition. Washington, DC: American Council on Education.

[6]GED Testing Service (1991). The 1990 GED Statistical Report. Washington, DC: American Council on Education.

[7]Baldwin, J. (1991). "Schooling, Study, and Academic Goals: The Education of GED Candidates." GED Profiles: Adults in Transition, No. 2. Washington, DC: American Council on Education.

[12]Venezky, R.L.; Kaestle, C.F.; and Sum, A.M. (1987). The Subtle Danger: Reflections on the Literacy Abilities of America's Young Adults. Princeton, NJ: Educational Testing Service, p. 6.

[13]Baldwin, J. (1991). Ibid.

[14]National Assessment of Educational Progress (undated). Writing Trends Across the Decade, 1974-84. Princeton, NJ: Educational Testing Service.

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[16]The U.S. edition of the Social Studies Test includes questions that address both a U.S. context and a global context. The Canadian edition of this test includes questions that address Canadian and global contexts.

[17]Venezky, R.L., et al. (1987). Ibid., p. 36.

[18]Venezky, R.L., et al. (1987). Ibid.

[19]Ibid.

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GED Profiles: Adults in Transition

Upcoming . . .

Future issues of *GED Profiles: Adults in Transition* will address:

- The Gender Gap: Women and Men Who Take the GED Tests
- GED Candidates: Does Age Make a Difference?

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GED Profiles: Adults in Transition

GED TESTING SERVICE OF THE AMERICAN COUNCIL ON EDUCATION • February 1993 • No. 6

The Gender Gap: Women and Men Who Take the GED Tests

by Elisabeth Hayes and Janet Baldwin

KEY FINDINGS AND IMPLICATIONS

- **Two-thirds of women candidates (68 percent) reported living in households with at least one child. Half (49 percent) of men did so. Women candidates are far more likely to share a household with children—which can limit their ability to participate in formal classes or to study at home or elsewhere. Programs that provide free childcare would increase access to education for women and men.**

- **Half of men candidates (50 percent) were living in a household with at least two other adults—probably their parents—compared with about one-third (37 percent) of women. Women candidates, on the other hand, were far more likely (63 percent) to be living with one other adult—probably a spouse—or none. Thus, women candidates are more likely than men to be single heads of household or to share household responsibilities with one other adult. These responsibilities can conflict with studying and pursuing other educational goals after obtaining the GED Diploma.**

- **Women were more likely (36 percent) than men (26 percent) to report annual household incomes of less than $10,000. By contrast, men were nearly twice as likely (18 percent) as women (10 percent) to report annual household incomes of more than $40,000. Earning a GED Diploma may provide an important means for both women and men to increase their earnings potential.**

Why are Gender Differences Important?

Over the last few decades, educational practitioners and researchers have become increasingly aware of differences in educational access, experiences, and outcomes for women and men. While the greatest emphasis has been on reducing inequities for women, men may also be adversely affected by biases in educational strategies and programs.

The findings in this report are based on a Fall 1989 nationwide survey of GED candidates. Several points should be kept in mind when interpreting these findings. First, the identified differences indicate general tendencies rather than absolute differences between women and men. In addition, while the focus in this report is on differences between women and men, many commonalities exist in their experiences as well. Educators and policymakers should give attention to similarities and differences when making program and policy decisions. Second, gender-related differences may vary according to other characteristics, such as race, ethnicity, and age. The relatively small propor-

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tions of minorities in the candidate sample made analysis of racial and ethnic group differences inappropriate, except for discussion of overall participation rates. Further research with larger samples is needed to clarify potentially distinctive experiences of minority women and men. Finally, the experiences of women and men are changing as gender-related norms and expectations change. However, despite considerable progress toward educational equity for women and men, the ongoing disparities reported here have implications for educational policies and practices.

Some of the findings reported here were presented in previous issues of *GED Profiles: Adults in Transition.* Additional discussion of these findings, and the data on which they are based, may be found in these previous reports.

Gender and GED Program Participation

The proportion of male and female GED candidates is comparable to the proportion of men and women in the U.S. adult population without a high school diploma. The proportion of women and men candidates varied according to candidates' age.

- **Women represented more than half (56 percent) of the candidates surveyed in 1989. By comparison, women represent 52 percent of the U.S. population without a high school diploma.** ***(Figure 1)***
- **Men and women were equally represented among all candidates under the age of 25. However, women represented well over half of candidates aged 25 or older and the percentage of women increased with age.** ***(Figure 2)***
- **Of men candidates, 71 percent were younger than 25 years of age, 19 percent were between the ages of 25 and 34, and 10 percent were 35 or older.** ***(Figure 3)***
- **Of women candidates, 54 percent were younger than 25 years of age, 25 percent were between the ages of 25 and 34, and and 21 percent were 35 or older.** ***(Figure 3)***

In 1989, women accounted for about 52 percent of adults in the United States with less than a high school degree. Thus, the proportion of women and men among the U.S. population with less than a high school education is about equal. The percentage of women among GED candidates (56 percent) is slightly higher than the percentage of women in the national population of high school dropouts.

However, there are important differences in GED test-taking related to the candidates' age. The proportion of women among GED candidates is higher than the proportion of women among all U.S. adults without high school diplomas, and this difference increases with age group. In 1989, women accounted for 46 percent of adults in the U.S. population aged 18-24 without high school diplomas, while 49 percent of GED candidates in this age group were women. Women represented a similar percentage of adults between the ages of 25 and 34 without high school diplomas (47 percent), while the percentage of women among candidates in this age group was much higher (62 percent). Finally, women constituted slightly more than half (54 percent) of adults over the age of 35 without diplomas, while their percentage among candidates in this age group increased to 72 percent (NCES, 1991a). *(Figure 2)*

Compared to the national population of adults without high school diplomas, men aged 25 and older seem to be underrepresented among current GED candidates. Policies and programs specifically targeted to support the participation of men in this age group

GED Profiles: Adults in Transition

GED Profiles: Adults in Transition is a series of policy-relevant reports based on research about an important segment of the adult learner population: people who take the GED Tests. Published by the GED Testing Service of the American Council on Education (ACE), the series is available for $65 from ACE, Publications Department (PAT), One Dupont Circle, Washington, DC 20036.

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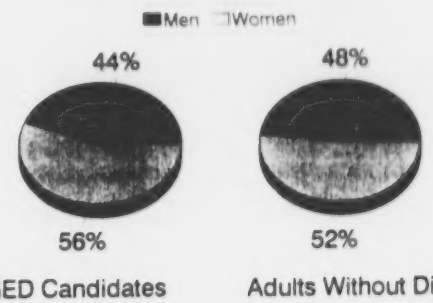
Figure 1

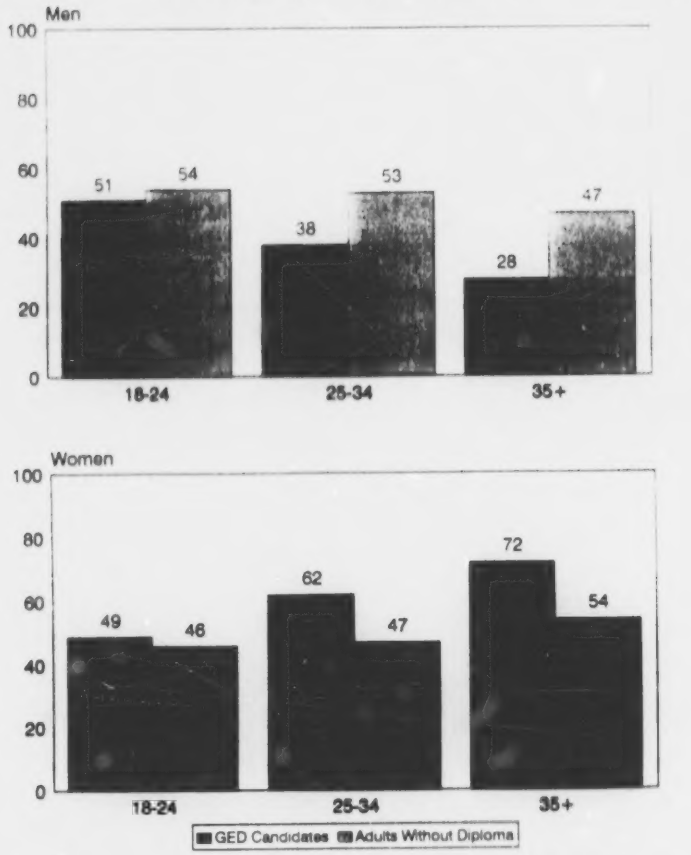
Percentage of Men and Women GED Candidates and U.S. Adults Without a High School Diploma



Sources: 1989 National Candidate Survey, American Council on Education, and National Center for Education Statistics

Figure 2

Percentage of Men and Women by Age Group Among GED Candidates and U.S. Adults Without a High School Diploma



Source: 1989 GED Candidate Survey, American Council on Education, and National Center for Education Statistics

- **The median age for women candidates was 23 years, higher than for men (20 years).**
- **Men candidates were far more likely to have never been married (71 percent) than were women (45 percent).**
- **Women candidates were more likely (36 percent) than men (22 percent) to report being married.**
- **Women were more likely to be divorced, separated, or widowed (20 percent) than were men (7 percent).**
- **Nearly two in three women candidates (63 percent) reported that they lived with one other adult or none. Half of men (50 percent) did so.**
- **Half of men candidates (50 percent) lived with at least two other adults. Only one in three women (37 percent) did so.**
- **Two-thirds of women candidates (68 percent) reported living in households with at least one child. Only half (50 percent) of men did so.** ***(Figure 4)***
- **Women were nearly twice as likely (18 percent) as men (10 percent) to report living with three or more children. (Figure 4)**

may be beneficial. As a high school credential becomes increasingly necessary for occupational advancement and job mobility, men as well as women of all ages may need increased access to GED testing and preparation programs.

Currently, women are more likely than men to participate in the GED program after a longer period of time away from school. The majority of both men and women candidates took the GED Tests before the age of 25. However, a higher percentage of women candidates (46 percent) than men (29 percent) were 25 years of age or older. Educational and counseling services to help them make the transition into GED preparation programs and further education may be particularly important for older women.

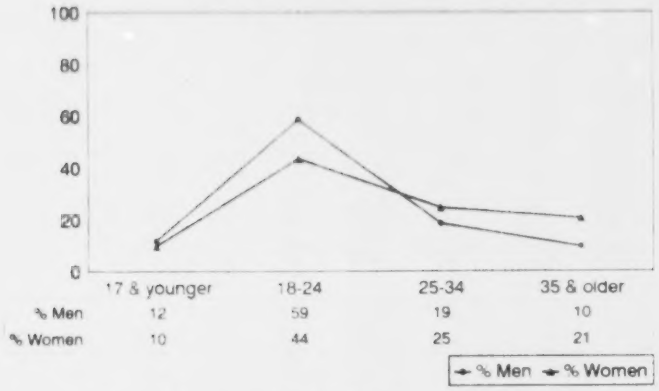
Life Situations of Women and Men Candidates

Candidates were asked to indicate their marital status, the total number of adults living with them, and the number of children under the age of 17 in their household.

Among GED candidates, a striking difference in marital patterns and life situations emerges. Nearly three in four men have never been married, while more than half of women either were or had been married. The greater percentage of men candidates who were never married may be related to the fact that they are more likely to be younger than women candidates. Moreover, among the U.S. adult population, women tend to marry at a younger age than men. In 1988, for example, the median age at first marriage for women was 24 years, compared to a median age of 26 for men (U.S. Department of Commerce, 1989). Marriage and children imply responsibilities that can conflict with candidates' ability to study, take the tests, and pursue educational or occupational

Figure 3

Percentage of Men and Women Candidates In Different Age Groups



Source: 1990 GED Candidate Survey, American Council on Education

goals. Women may be more likely than men to experience these situational constraints.

Situational constraints also may be particularly acute for the high proportion of women candidates who are single heads of households. Nationally, 75 percent of female heads of households with less than a high school diploma live in poverty, compared to 34 percent of men in the same situation (National Coalition on Women and Girls in Education, 1988). In addition, 61 percent of single female-headed households in the United States include children under age 18, compared to 40 percent of single male-headed households. The GED program provides many women with an opportunity to improve their life chances and those of their children. However, financial assistance may be important to increase women's ability to prepare for the GED Tests and subsequently to pursue further education. Affordable and available childcare is particularly important for women, yet the demand continues to exceed the supply. Policymakers and educators should ensure that adequate childcare and financial aid programs are available to both women and men who seek to improve their education and skills.

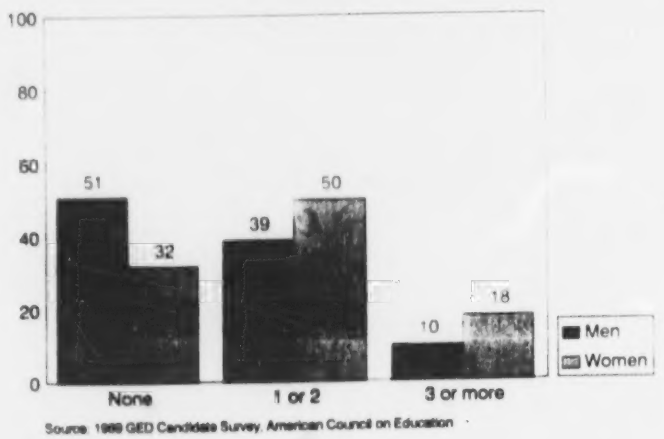
Women, Men, and Schooling

Differences in women's and men's school experiences may affect their attitudes toward formal education as adults, and thus their participation in adult education programs. Candidates were asked to report their reasons for not completing high school. These reasons fell into seven distinct categories: disengagement from school, marriage or pregnancy, home and family problems, employment-related reasons, social behavior problems, shortcomings of the school, and academic problems. These categories were based on a factor analysis of 44 reasons for not completing school and are described in more detail in Baldwin (1991).

- **Women candidates earned better grades while in high school than men did. Four in five women (80 percent) earned grades of mostly C or better compared to two in three men (67 percent).**
- **Women candidates left school earlier than men. While 43 percent of men candidates finished at least 11th grade, only 35 percent of women did so.**
- **For women candidates, the most commonly reported reasons for dropping out of school were marriage or pregnancy (reported by 30 percent of women) and home and family problems (reported by 22 percent of women). *(Figure 5)***
- **The categories of reasons for leaving school most commonly reported by men candidates were disengagement from school (reported by 31 percent of men)**

Figure 4

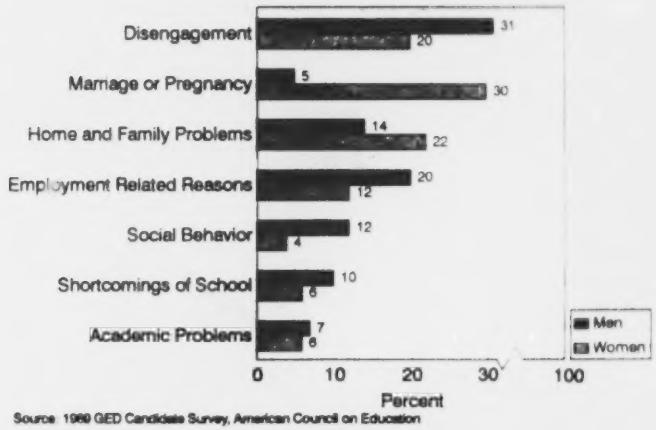
Percentage of Men and Women GED Candidates Living with Children



Source: 1990 GED Candidate Survey, American Council on Education

Figure 5

Percent of Men and Women Candidates by Most Important Reason for Leaving School



Source: 1990 GED Candidate Survey, American Council on Education

and employment-related reasons (reported by 20 percent of men). *(Figure 5)*

In spite of earning better grades than men, women candidates left school at an earlier age—and thus completed fewer grades. The reasons for leaving school show a clear pattern of differences.

Reasons for dropping out of school might be grouped into two general categories: those attributed to individual life circumstances and those attributed to schooling itself. In terms of life circumstances, women were much more likely than men to leave school for reasons attributed to pregnancy and family concerns. Currently the GED program is providing many women with the opportunity to demonstrate their abilities and to complete an education interrupted by pregnancy or marriage. Furstenberg, Brooks-Gunn, and Morgan (1987) identified the GED program as one important route out of poverty in later life for teen mothers, but pointed out that the value of adult programs for young mothers has barely been tapped. These authors also point out the need for better preventative programs that can enable teenage mothers to remain in school.

Men were more likely than women to indicate employment-related reasons for leaving school. This difference is supported by other national statistics on reasons for dropping out of high school. Data from the National Center for Education Statistic's longitudinal study of high school students indicated that 27 percent of male dropouts left school in order to work, compared to 11 per-cent of female dropouts (Markey, 1988). Workplace-based educational programs may be effective for serving male dropouts. Dropout prevention programs may need to address economic needs or other factors that lead to employment-related conflicts with schooling.

Men candidates were more likely than women candidates to drop out for reasons attributed to disengagement from or shortcomings of their schooling experience. Other studies suggest that boys may be more likely than girls to demonstrate active resistance to schooling (Holland & Eisenhart, 1990; Weiler, 1988). This resistance may be based on legitimate criticisms of inadequacies in the schools. However, such resistance may put men at a disadvantage if it prevents them from obtaining skills and credentials necessary for occupational advancement. GED preparation programs may need to provide instruction in a manner different from traditional schooling if they are to overcome such resistance. GED preparation programs can provide an opportunity to change negative attitudes toward education. In a recent follow-up study of GED graduates, 79 percent of respondents indicated that they had a more positive attitude toward education as a result of participation in the GED program (Hayes, 1991).

Women's Work and Men's Work

Candidates reported the number of hours per week they worked (full-time employment was defined as working at least 35 hours per week). In addition, they reported their household income for 1988. Candidates also indicated their current or most recent job from a list of job categories used in U.S. Department of Labor reports. More detailed descriptions of these job categories can be found in Baldwin and Spille (1991).

- **About 59 percent of men were employed at the time they took the GED Tests, compared to 47 percent of women candidates.**
- **Women were less likely than men to work full time. About 80 percent of employed male candidates were working full time, compared to 67 percent of employed female candidates.**
- **Women candidates were more likely (36 percent) than men (26 percent) to report lower annual household incomes. *(Figure 6)***
- **Men were nearly twice as likely (18 percent) as women (10 per-cent) to report household incomes of over $40,000. *(Figure 6)***
- **The reason most frequently reported by women for not seeking employment was home and family responsibilities. More than half of women (53 percent) reported these reasons, compared to 6 percent of men. The reason most often reported by men (43 percent) and next most often reported by women (47 percent) was enrollment in school.**

Earning the GED credential may provide an important avenue for women to increase their potential for higher earnings. Statistics compiled by the U.S. Department of Education indicate that the earnings penalty for not completing high school is greater for women than men. Male high school dropouts between the ages of 25 and 34 earned about 28 percent less than male high school graduates without a college education. Female high school dropouts in the same age bracket earned about 38 percent less than female graduates (NCES, 1991b).

Differences in average incomes between women and men candidates may be related to lower employment rates among women. Women candidates were more likely to be employed part-time or to be unemployed than men candidates. Young female dropouts are especially likely to be unemployed; in 1986 the unemployment rate for female dropouts aged 16-24 was 30 percent, more than twice the rate for women this age who earned a high school degree and about half again the rate for male dropouts (Markey, 1988). For young women, earning a GED credential, combined with occupational training, may be a valuable means of promoting their immediate and long-term economic self-sufficiency.

For some candidates, part-time employment or being out of the workforce may be a matter of choice. Almost half of both women and men who were unemployed and not seeking employment indicated school enrollment as the primary reason. While the nature of this schooling was not specified by candidates, it logically may have consisted of attending GED Test preparation classes or learning center programs. Scholarships or other financial support for participation in GED preparation programs can assist candidates who need to reduce their working hours in order to study.

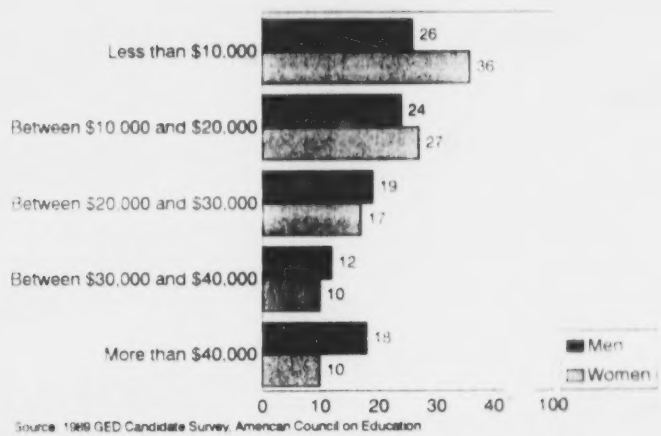
Women's employment status is likely to be affected by their home and family responsibilities. Some women may choose to make such responsibilities a priority in relation to paid employment. However, the low income levels of many women candidates suggests that unemployment or part-time employment may create financial problems for them and their families. Home and family responsibilities may continue to interfere with employment or further education after GED graduation.

Preparing for the GED

The majority of all candidates (84 percent) studied in some way before taking the GED Tests. Candidates who did not study were asked to indicate their main reasons for not studying, which included no need to review, lack of awareness of classes, inability to take time off from work, no access to childcare, no money for review materials, lack of transportation, inconvenient class schedules, and perceptions that classes would not be helpful.

- **Nearly all candidates studied for the GED Tests (84 percent).**
- **Women candidates were more likely to study for the GED Tests (87 percent) than men candidates (80 percent).**
- **Of those who did *not* study for the GED Tests (13 percent of women and 20 percent of men), the most frequently reported reason was no need to review. Men were more likely (47 percent) than women (29 percent) to report this reason.**
- **The second most frequently reported reason for not studying was the inability to take time off from work, reported by at least one in five women (20 percent) and men (23 percent).**

Figure 6
Percent of Men and Women Candidates
By Annual Household Income



Source: 1989 GED Candidate Survey, American Council on Education

More than four in five candidates reported studying for the GED Tests. Women were more likely to study than men candidates; of candidates who did not study, men were more likely than women to report no need to review. Women's greater likelihood of studying and men's greater likelihood of perceiving no need to study may be related to differences in men's and women's length of time between leaving school and taking the GED Tests. Because women represented a higher proportion of candidates aged 25 and older, they were more likely than men to have been out of school for longer periods of time. In addition, women candidates may have less confidence in their academic skills than men. Other research has suggested that women may have doubts about their intellectual abilities (Belenky

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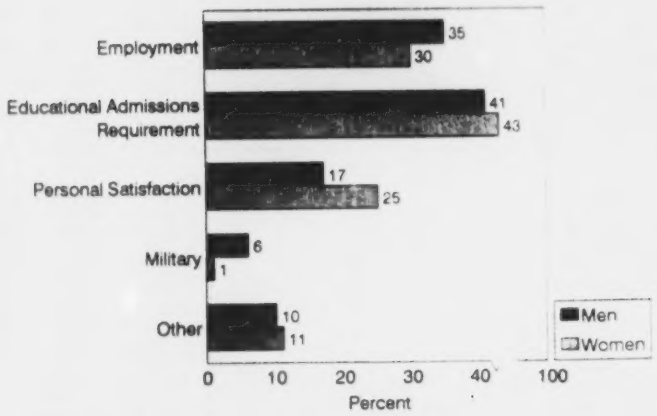
Figure 7
Reasons Men and Women Gave for Taking the GED Tests



Source: 1990 GED Candidate Survey, American Council on Education

et al., 1986). Educational strategies that confirm and build upon women's existing abilities may be a valuable means of enhancing women's skills and self-confidence.

Looking to the Future: Reasons for Taking the GED Tests

Candidates were asked to indicate their most important reason for taking the GED Tests.

- **More than two in five women (43 percent) and men (41 percent) indicated educational reasons as most important for taking the GED Tests.** ***(Figure 7)***
- **More than one in three men candidates (35 percent) and three in ten women (30 percent) indicated employment-related outcomes as most important for taking the GED Tests.** ***(Figure 7)***
- **Women were more likely than men to indicate feeling better about themselves as the most important reason for taking the GED Tests (25 percent vs. 17 percent).** ***(Figure 7)***

Earning a GED credential can enable adults to enhance their self-esteem by overcoming the stigma associated with dropping out of high school. The GED program may be particularly valuable for women in this regard, as suggested by their greater expectation of feeling better about themselves as a result of earning the credential. Both women and men also view the attainment of the GED Diploma as a tool for furthering their education and improving their employment. The ultimate economic value of a high school credential alone, however, may differ considerably for women and men. In 1989 the median annual income of year-round full-time workers aged 25 and older varied considerably for women and men high school graduates. As reported by the National Center for Education Statistics (1991a), the median annual income for male high school graduates was $26,065, compared to $17,528 for female high school graduates. In fact, the median income for a female *college* graduate was only $26,709, little more than that of a male with only a high school credential.

Many factors in addition to educational attainment affect earnings, including the nature of previous work experience and length of employment. Women candidates are likely to be at a disadvantage in relation to men on these factors since they are more likely than men to take the tests at a later age, to be unemployed or employed part time, or to be out of the workforce.

Because a higher proportion of women candidates than men reported living with children, it is logical that women candidates are more likely than men to expect that earning a GED Diploma will enable them to help their children with schoolwork. Results from the follow-up study cited earlier (Hayes, 1991) indicate that women are more likely than men to report actual changes related to parenting after earning the GED Diploma, such as the ability to help children with schoolwork. Educators and policymakers should devote greater attention to the potential impact of the GED program on the children of GED graduates. In some GED preparation programs, it may be desirable to incorporate educational strategies for parents that will enhance this impact, such as those described by Van Fossen & Sticht (1991). It may also be important to encourage men candidates' interest and involvement in their children's school-related activities.

Conclusion

Understanding differences in the experiences of female and male GED candidates can be useful to GED program personnel in several ways. First, variations in women's and men's GED program participation suggest the need to target recruitment strategies and support specifically to women or men. Second, differences in women's and men's life situations, previous educational experiences and current educational needs have implications for the design of GED preparation programs. Finally, differences in anticipated (and actual) outcomes for women and men suggest that alternative follow-up strategies are necessary to ensure that both women and men are successful in achieving further goals. Overall, recognition of the significance of gender differences implies that a "blanket approach" to GED programming may not be appropriate. Rather, strategies that address specific needs of women

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and men may be needed to promote the success of both groups.

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Notes: In this report, the population of adults without a high school diploma comprises noninstitutional civilians aged 16 and older in the United States. Minorities includes Hispanics, African Americans, Asian Americans, Pacific Islanders, Alaskan Natives, American Indians, and others. Employed workers include those employed both for pay and not for pay.

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GED Profiles: Adults in Transition

GED TESTING SERVICE OF THE AMERICAN COUNCIL ON EDUCATION • September 1994 • No. 7

GED Candidates: Does Age Make a Difference?

by Bonnie Kroll and Janet Baldwin

KEY FINDINGS AND IMPLICATIONS

- About three in five GED candidates were younger than 25 years of age. This figure stands in sharp contrast to the age distribution of people in the United States who have no high school diploma. Fewer than 10 percent of the estimated 43.3 million adults in America who do not have a high school diploma are younger than 25 years of age. Almost 91 percent are ages 25 and older. **It appears that while dropout recovery efforts based on the GED Tests may be strong for younger adults, they are reaching a relatively small portion of older adults who have no high school diploma.**
- Surveyed candidates ages 35 years or older have completed fewer years of formal schooling yet performed, on average, as well as younger candidates. The certification of knowledge and skills gained through life experience was one of the original purposes of the GED Tests. **Policy makers, employers, and adult educators should encourage older adults as well as younger adults to earn their GED diplomas.**
- Differences based on age alone were less notable than differences based on age-by-gender categories. The age-by-gender groups with the largest number of GED candidates were men ages 18 and 19 (15 percent of all candidates) and women ages 25 to 34 (14 percent). The differences in the life situations of these groups underscore the fact that there is no "typical" GED candidate. **Educational program planners must offer a variety of kinds of programs to meet the diverse needs of those seeking a GED diploma.**
- Almost half (45 percent) of all GED candidates reported that one of their reasons for taking the GED Tests was to be able to enroll in a college or university. Younger candidates were more likely than older candidates to plan on attending college during the next year. Older candidates were more likely than younger candidates to plan on continuing their education through self-study. **Counselors should recognize this motivation to continue schooling and self-study and facilitate access to college and other learning experiences for GED graduates.**

This, the seventh report of the *GED Profiles: Adults in Transition* series, addresses the question, "Does age make a difference for GED candidates?" The findings in this series of reports are based on a survey of 7,500 people who took the English-language edition of the GED Tests in Fall 1989. To estimate actual numbers of candidates, the results of this survey were applied to the 614,142 GED candidates who took the English-language version of the tests in the United States and its territories in 1989. Some findings reported here were reported in previous issues of *GED Profiles: Adults in Transition.*

Issue Highlights:

- **Of candidates who studied for the GED credential, at least one in three of each age group attended formal GED classes.**
- **Candidates ages 55 and older were more likely than younger candidates to attend formal classes.**
- **The percentage of candidates who use calculators increased with age—from 34 percent of those ages 17 or younger to 63 percent of those ages 45 to 54.**

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Age and the GED Candidate

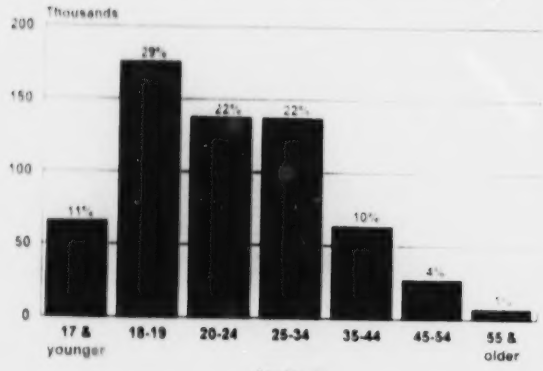
The greatest difference that age makes for potential GED candidates—adults who do not have a high school diploma—is the likelihood that they will take the GED Tests.

- **According to 1990 Census figures, more than 39 million people in the U.S., ages 25 or older, were not in school and did not have a high school diploma. Of this age group, an estimated 235,000 (less than 1 percent) took the GED Tests in 1989.**
- **About 4.3 million people in the U.S., ages 16 to 24 years, were not in school and did not have a high school diploma. Of this age group, an estimated 379,000 (almost 9 percent) took the GED Tests in 1989.**
- **Three in five GED candidates (62 percent) were younger than 25 years. Nearly three in ten (29 percent) were ages 18 or 19. *(Figure 1)***
- **Only 16 percent of GED candidates were 35 years or older. *(Figure 1)***

There are more than 43 million adults ages 16 and older in the United States who do not have a high school diploma. About 4 million, or one in ten, are under the age of 25. Yet about six in ten GED candidates in 1989 were younger than 25.

Figure 1

Number of GED Candidates, by Age Group



Note: Due to rounding, percents may not sum to 100.
Source: 1989 National Candidate Survey, American Council on Education

Estimates of the high school dropout rate in the United States range from a low of 12 percent to a high of 27 percent, depending on how this rate is calculated (Barro and Kolstad, 1987). The number of children in America whose family background and poverty level place them most at risk of dropping out of high school is growing at a faster rate than the number of children who are not predicted to be at risk. Some researchers have cautioned that the increase in the number of at-risk students, coupled with widespread efforts to raise standards in America's public schools, will push the national dropout rate higher (Barro and Kolstad, 1987; Natriello, McGill, and Pallas, 1990). The social and economic costs of dropping out of school make this a critical issue for all Americans. While policy and resources must be targeted to encourage young people to stay in school, similar efforts should address the education and employment needs of those who left school before completion, almost a quarter of the adult population of the United States.

Many employers and postsecondary institutions require a high school diploma or its equivalent as a prerequisite to employment or further schooling. To meet the demands of an increasingly global economy, adults without a high school diploma must have opportunities to improve their educational skills and earn their high school credentials. By taking and passing the GED Tests, adults can demonstrate they have acquired high school level skills and knowledge, and thereby qualify for further education and training. In 1989, almost 615,000 people took the English-language edition of the GED Tests and of these more than 360,000 earned their high school equivalency credentials. Each year, about one in seven of all high school diplomas awarded in the United States is based on the GED Tests.

Yet dropout recovery efforts reach relatively few adults ages 25 or older. For many persons without a high school diploma, the GED credential serves as an important prerequisite toward further schooling or better employment. Yet, by the time they have reached their mid-twenties, many adults who did not complete high school are too busy with the demands of family and employment to make time for earning their high school diplomas, especially if they do

GED Profiles: Adults in Transition

GED Profiles: Adults in Transition is a series of policy-relevant reports based on research about an important segment of the adult learner population: people who take the GED Tests. Published by the GED Testing Service of the American Council on Education, the series is available for $55 from the GED Fulfillment Service, PO Box 261, Annapolis Junction, MD 20701; 301/604-9073.

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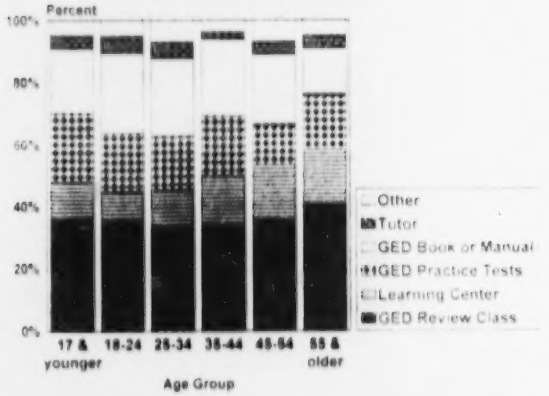
not think that diploma will bring immediate rewards such as a better job or higher pay. Recent reports (Baldwin and Spille, 1991; Webb, 1991) discussed the value of the GED diploma to employers. By providing a rewards system for educational attainment, such as supporting and recognizing the efforts of those who earn a GED diploma, employers can encourage older workers as well as younger ones to seek further education and training.

Age, Schooling, and Test Scores

Even though older candidates reported completing less formal schooling than younger candidates, they performed at least as well as younger candidates on the GED Tests.

- **Younger GED candidates reported completing more formal schooling than older candidates. GED candidates ages 18 to 24 were far more likely (47 percent) than candidates ages 45 and older (25 percent) to have completed grade eleven or higher.**
- **In a study of the test performance of the surveyed candidates, age made little difference in average scores on each test. An exception was the higher average score of candidates ages 45 to 54 on the Test of Interpreting Literature and the Arts.** ***(Figure 2)***
- **Of candidates who studied, at least one in three (33 to 41 percent) of each age group attended formal GED classes. Candidates ages 55 and older were more likely than younger candidates to attend formal classes.** ***(Figure 3)***
- **One in four (25 percent) candidates in age groups from 18 to 44 studied independently using a book or manual designed for GED study.** ***(Figure 3)***
- **The percentage of candidates who used calculators in their daily life increased with age from a low of 34 percent of those ages 17 or younger to a high of 63 percent of those ages 45 to 54.** ***(Figure 4)***

Figure 3
How Candidates Who Studied Prepared for the GED Tests



Note: Other includes watching GED on TV, talking with someone, etc.
Source: 1989 National Candidate Survey, American Council on Education

Figure 2
GED Candidates' Mean Standard Scores
By Test and by Age Group

	17 & younger	18-19	20-24	25-34	35-44	45-54	55 & older	Average by Test
Writing Skills	47	46	44	44	44	44	46	45
Social Studies	48	49	49	50	50	51	49	49
Science	49	49	49	50	48	50	49	49
Literature, Arts	49	49	49	51	50	53	49	50
Mathematics	46	46	45	45	44	44	43	45
Average by Age Group	48	48	47	48	47	48	47	48

Note: Sample size for the Writing Skills Test was 1052, for the other four tests sample sizes ranged from 2851 (Mathematics Test) to 3230 (Social Studies Test).

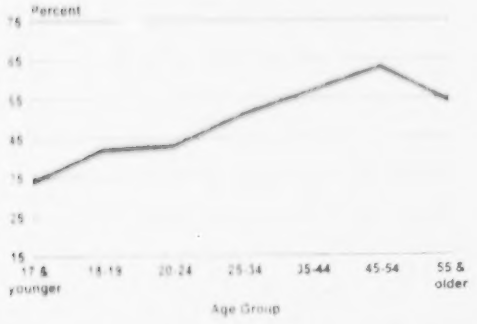
Sources: Test Performance of GED Candidates and 1989 National Candidate Survey, American Council on Education.

Most candidates (84 percent) studied before taking the GED Tests and this held regardless of age group (Baldwin, 1991a). Among candidates who studied, age seemed to make little difference in *how* they prepared for the tests. Only about 11 percent of each age group used a computer to help them prepare for the tests.

The GED testing program began as a way for returning World War II veterans—whose military service had prevented them from completing high school—to demonstrate that the knowledge and skills they had gained during their military service were equivalent to those of high school graduates. The **GED Tests were founded on the premise that learning does not end with formal**

Figure 4

Use of Calculators by Age Group



Source: 1989 National Candidate Survey, American Council on Education

schooling. Those who have left traditional schooling must have the opportunity to certify the knowledge and skills that they have gained through workplace training, self-study, life experience, or other means. That older GED candidates performed as well as younger candidates, on average, supports this fundamental purpose of the GED Tests.

The Typical GED Candidate

The difference that age makes for GED candidates becomes more apparent when examined in the context of gender differences. In general, men and women candidates are nearly equally represented among ages younger than 25. In age groups 25 and older, women outnumber men. Moreover, the proportion of women to men increases by age group. *(Figure 5)*

Age groups selected as most typical of GED candidates were those that had the largest numbers of men and women. The two largest groups of candidates classified by gender and age were men ages 18 and 19 (an estimated 92,700 candidates, or 53 percent of this age group) and women ages 25 to 34 (an estimated 86,000 candidates, or 63 percent of this age group) *(Figure 5)*. Although women ages 18 and 19 represented nearly as large a group as did women ages 25 to 34, comparisons between men ages 18 to 19 and women ages 25 to 34 provided stronger contrasts in background, employment, and life circumstances.

Background

Of men candidates, ages 18 to 19:

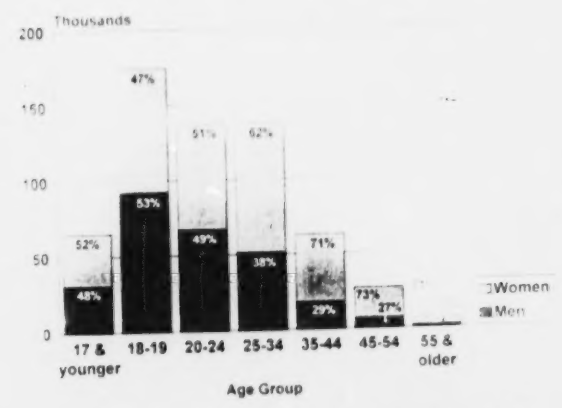
- **Nearly all (94 percent) reported they were unmarried.**
- **More than half (52 percent) reported living in a household with no children, while few (7 percent) reported sharing a household with 3 or more children.**
- **One in eight (13 percent) reported that no other adult lived in their household.**
- **Three in ten (32 percent) reported that they had left high school because of reasons relating to disengagement from school.**

Of women candidates, ages 25 to 34:

- **Half (49 percent) reported they were unmarried.**
- **One in seven (14 percent) reported living in a household with no children, while one in three (32 percent) reported sharing a household with 3 or more children.**
- **Three in ten, (29 percent) reported that no other adult lived in their household.**

Figure 5

Men and Women GED Candidates by Age Group



Source: 1989 National Candidate Survey, American Council on Education

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- **Two in five (40 percent) reported that they had left high school because of pregnancy or marriage.**

Employment

Of men candidates, ages 18 to 19:

- **Nearly six in ten (58 percent) reported they were employed, while three in ten (30 percent) were unemployed but looking for work.**
- **Very few (6 percent) lived in a household that derived at least part of its income from welfare.**
- **One in four (24 percent) reported annual household incomes of less than $10,000, while more than one in three (37 percent) reported annual household incomes of $30,000 or more.**

Of women candidates, ages 25 to 34:

- **Two in five (41 percent) reported they were employed, the lowest proportion of any age by gender group, while three in ten (29 percent) were unemployed but looking for work.**
- **Three in ten (29 percent) lived in a household that derived at least part of its income from welfare, the highest proportion of any age by gender group.**
- **Two in five (40 percent) reported annual household incomes of less than $10,000, while about one in seven (15 percent) reported annual household incomes of $30,000 or more.**

The differences between these two largest groups of GED candidates point out that there is no typical GED candidate. Together, the two groups—men ages 18 to 19 and women ages 25 to 34—represented less than a third (29 percent) of all candidates in 1989, yet they were more typical than other age-by-gender groups. Young men ages 18 to 19 tended to be employed, single, and living in households with no children. Women ages 25 to 34 tended to be coping with the adult responsibilities of marriage and young children

It is critical that those who plan adult education programs acknowledge the diversity of the groups that they are serving. GED program providers who recognize that different groups have unique life situations that may impede participation in adult education programs can improve the accessibility of their programs by addressing those impediments. For example, some programs could be offered in cooperation with employers; other programs could make childcare available during classes.

Aspirations and Academic Goals

From a list of 15 reasons for taking the GED Tests, candidates reported their most important reason. These reasons fell into three main categories: educational, employment, and personal fulfillment. Candidates also reported their educational plans during the next year.

- **The percentage of those who said that their most important reason for taking the GED Tests was to help them gain admission to a postsecondary education or training program decreased with age, from 41 percent of candidates 17 and younger to 10 percent of those 55 and older.** ***(Figure 6)***
- **The percentage of those who said that their most important reason for taking the GED Tests was related to employment increased with age, from a low of 28 percent of candidates ages 18 to 19 to a high of 43 percent of candidates ages 45 to 54.** ***(Figure 6)***
- **The percentage of those who said that the most important reason for taking the GED Tests was to help them feel better about themselves or to be better educated increased with age, from a low of 21 percent of candidates 17 and under to a high of 58 percent of candidates 55 and over.** ***(Figure 6)***
- **Overall, one out of three candidates (33 percent) reported that their most important reason for taking the GED Tests was to be able to enroll in postsecondary schooling.**
- **The percentage of those who reported that they planned to attend college within the next year decreased with age, from 49 percent of candidates ages 18 to 19 to 23 percent of those 55 and older.** ***(Figure 7)***
- **The percentage of those who reported that they planned to continue their education during the next year through self-study increased with age, from 2 percent of candidates ages 17 and younger to 20 percent of those ages 55 and older.** ***(Figure 7)***

Taking the GED Tests signals to employers and to college admission

Sources of Information for GED Profiles: Adults in Transition

In 1980, the GED Testing Service conducted a national survey of persons taking the English-language version of the GED Tests. A subsequent survey was conducted in 1989 to learn how GED candidates had changed and to provide an in-depth profile of candidates' attitudes, experiences, backgrounds, and goals. In 1989, the GED Testing Service also analyzed the recent test achievement of GED examinees and graduating high school seniors. The **GED Profiles: Adults in Transition** series is based on data from these studies and from statistical reports published in 1980 and in 1989. Technical documentation for the series is provided in **GED Profiles: Technical Summaries**, which contains descriptions of samples, instruments, and procedures as well as tables of candidate responses to questions from the 1980 and 1989 candidate surveys. This document is available from the GED Testing Service.

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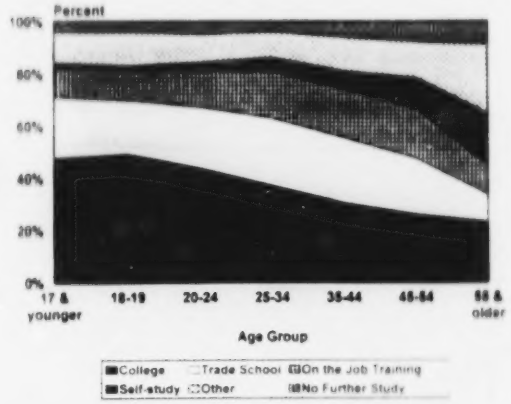
officers that a person recognizes the importance of education. In addition to reporting their most important reasons for taking the tests, candidates also were asked to mark as many reasons as applied to them. Almost half (45 percent) of all GED candidates reported that one of their reasons for taking the GED Tests was to help them gain admission to a college or university.

According to estimates derived from the U.S. Department of Education's *National Postsecondary Student Aid Study: 1989–1990*, almost 800,000 GED graduates were enrolled in formal postsecondary education between July 1, 1989 and June 30, 1990. Nearly three out of five of those students (57 percent) were enrolled in community colleges. The average age of GED graduates enrolled in community colleges was 31 years. A recent review of studies done on the success of GED graduates in community colleges (Kroll, 1993) suggests that the GED diploma indicates the same readiness for community college as does a traditional high school diploma.

Passing the GED Tests represents achievement in reading, writing, and mathematics. The recent U.S. Department of Education survey of the literacy skills of the nation's adults (Kirsch, Jungeblut, Jenkins, and Kolstad, 1993) found that those whose highest level of educational attainment is a GED diploma had much higher average literacy levels than those who completed 9 to 12 years of schooling but did not earn a high school diploma *(Figure 8)*. The average literacy levels of those who earned GED diplomas were about the same as those who earned traditional high school diplomas *(see note on page 7)*.

Figure 7

Education Plans by Percentage of Age Group



Source: 1989 National Candidate Survey, American Council on Education

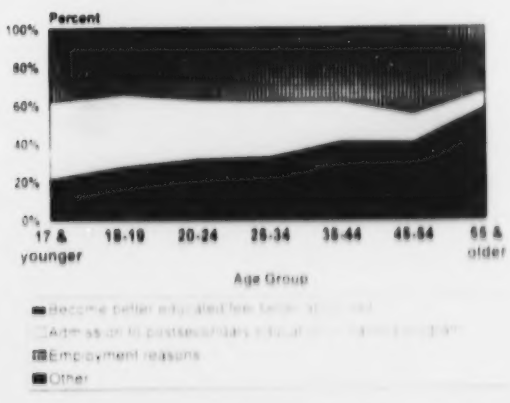
Conclusion

Recent studies of GED graduates have shown that attainment of the GED diploma is accompanied by an increase in self esteem (Hayes, 1991; Iowa Department. of Education, 1992). For many, the GED diploma stands as a symbol that they can overcome the obstacles in their lives that had previously prevented them from completing school. Improving their own lives through education becomes a real possibility for GED graduates. This is the second chance that the GED diploma offers.

Adults, regardless of age, deserve to have a second chance. Nine out of ten adults who do not have a high school diploma are older than 25. Older adults who do take the GED Tests perform, on average, as well as younger adults. If America is to become the country of educated citizens envisioned by America 2000, efforts to target older adults and encourage them to earn their high school credential must be significantly increased.

Figure 6

Most Important Reason for Taking the Tests, by Percentage of Age Group



Source: 1989 National Candidate Survey, American Council on Education

Notes: *U.S. population estimates of the number of adults without diplomas are based on data from the 1990 U.S. Census for persons ages 16 and older.*

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Figure 8
Percent of Adults in the U.S. at Each Level of Prose, Document, and Quantitative Literacy, by Education Level

Prose

Education Level	Level 1	Level 2	Level 3	Level 4	Level 5
9 to 12 years	42	38	17	2	0
GED	14	39	39	7	0
High School	16	36	37	10	1

Document

Education Level	Level 1	Level 2	Level 3	Level 4	Level 5
9 to 12 years	46	37	15	2	0
GED	17	42	34	7	0
High School	20	38	33	9	1

Quantitative

Education Level	Level 1	Level 2	Level 3	Level 4	Level 5
9 to 12 years	45	34	17	3	0
GED	16	38	35	10	1
High School	18	33	37	12	1

Source: National Adult Literacy Survey, U.S. Department of Education

out of school, and without a high school credential.

The education levels reported in the National Adult Literacy Survey represented the highest level of education that a person had completed. In other words, those GED graduates who continued their education in college were not counted at the education level "GED."

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